THE FARMERS' CABINET,
AND
AMERICAN HERD-BOOK,
DEVOTED TO
AGRICULTURE, HORTICULTURE, AND RURAL AND DOMESTIC AFFAIRS.

"The Productions of the Earth will always be in proportion to the culture bestowed upon it."

Vol. VII.—No. 5.] 12th mo. (December,) 15th, 1842. [Whole No. 95.

JOSIAH TATUM,
PROPRIETOR AND PUBLISHER,
No. 50 North Fourth Street,
PHILADELPHIA.

Edited by the Proprietor and James Pedder.

Price one dollar per year.—For conditions see last page.

From The Farmers' Register.

Some account of the green-sand earth of Gloucester and Salem Counties, N. J., and the effects as manure.

It will be recollected that in the 2nd No. of our current Volume, a short account is given of a visit which one of the editors, in company with Edmund Ruffin, the able conductor of the Farmers' Register, published in Petersburg, Va., paid to some of the marl beds near Woodbury, N. J., in the early part of the Ninth month last. In the Register for that month, the editor has given an account in detail of this visit, as also of that which he subsequently made to similar interesting deposites in the vicinity of Woodstown, in Salem county. He had there also an opportunity of witnessing numerous evidences of the great effects resulting from the application of the green-sand marl to poor and worn out soils, within its reach. We have been much interested in reading the article, and exceedingly regret that our limits will not allow us to transfer the whole of it to our pages. In the extracts which follow, we are fearful that we have not done justice to the author, or to our readers. We have, however, endeavoured to do it, so far as the necessity for abridgment would allow. The author, we know, will excuse any deficiency—to our readers, we would say, buy the book.

Ed. F. Cab.

The New Jersey green-sand earth, and the beneficial and wonderful effects produced by its use as manure, have long been subjects of interest and curiosity to every person accustomed to read or to hear of the progress of agricultural improvement in the United States. There were other additional reasons, (which will be obvious to all readers of the past volumes of the Farmers' Register,) which made me take especial interest in this subject, and to seek information thereupon, as I have done for a long time past, from every source offered by publications.

Deeming, from everything yet read, that there would be no means of obtaining the correct information desired, except by personal examination, I determined to visit the green-sand region of New Jersey; and to make this personal inspection, and to have opportunities for making personal inquiries, formed the sole objects of a journey from my distant place of residence.

[Here follows the account of the examination in the vicinity of Woodbury, which as we have already noticed it, and for brevity's sake, we are obliged entirely to omit. From Woodbury he returned to Philadelphia, where he remained a few days; afterward he says:]

I proceeded to examine another and a much more improved and important district of New Jersey. This is the country surrounding and neighbouring to Woodstown, in Salem county.

I had occasion to congratulate myself as to the hands into which I fell. My first used direction led me to David M. Davis, a resident of the village, and his kind attentions and hospitality left me nothing to desire, either as to the means for obtaining the best information, or for any other accommodation and comfort that his house and other means so abundantly afforded. In addition to all that he could tell and show me of his own operations, he carried me to as many of the most interesting points for observation as could be visited during my short stay, and enabled me to see and to inquire of many of the farmers most experienced in the use of green-sand earth.

Our first visit was to the diggings in Woodstown. They extend over three or four acres, all of which space has been excavated, and the green-sand earth removed. There was no digging then going on there, but plentiful signs of the extent of recent work in many large heaps, or mounds of conical shape, formed of the excavated earth, standing to dry somewhat, or wait until their different owners, who had either dug them or bought them of the labourers, should find it convenient to haul the earth to their farms.

At another locality, visited next morning, there was a scene of much greater activity seen in numerous labourers employed in every different operation of the business.

This locality embraced the several adjoining diggings of Richmond Dickenson, Henry Allen, and Allen Wallace. It was indeed a busy and spirit-stirring scene; and the operations were so interesting to those engaged at work, and to me as a spectator, that I should have been glad to have spent some days there for the mere gratification thus derived, and for full opportunity of conversing freely with the industrious and zealous operators.

The proprietor of a bed sometimes digs and sells the green-sand by the load; but the more usual course is to sell it by the square rod (16½ feet square,) to labourers, who uncover the earth, dig it out, and place it in a single high mound, just far enough from the pit to be safe, and then sell by the heap to the neighbouring farmers. The price by the load from such mounds, is fifty cents, at the Woodstown diggings and other beds of highest reputation; and forty cents at others, (as Cawley's,) which, even if as good, have yet to be as well established in the estimation of the farmers. However, as the quantity in a heap, yielded from one pit, is estimated with considerable accuracy, the sales are generally made by the entire heap, at a somewhat less price, say forty cents the load, by the estimate of the heap. The covering earth is thick, say usually varying from 8 to 12 feet; and one place seemed to me 16 feet. This the labourers or purchasers by the rod have to dig off, and all down to the manure that is not used to fill the adjoining and last made pit, must be removed in carts some fifty or more yards. The excavation of the green-sand earth is never begun except in the morning, and by a sufficient force to sink it as deep as can be done in the course of the day. When sunk some 10 feet in the best earth, the increase of water, and the liability of the sides to cave in, usually compel the work to be stopped, and all below that depth is lost. The proprietor sells the privilege of digging, at $6, $8 or $10 the rod, according to the greater or less difficulty of the work, or the less or greater amount of good earth to be obtained. In some cases (in Gloucester,) where there was very little covering earth to be removed, the price has been as high as $16 the rod. It usually requires sixteen able men to dig out a rod in a day, and heap the earth excavated. A job which I saw in operation had twenty-three hands, three of them being boys; but this was unusually troublesome. Men hired to dig in the pits, are paid 75 cents a day if found in food, or $1, or $1.12½, if finding themselves. It is heavy labour, and the greater part is performed in mud and water.

The heaps of green-sand earth when first thrown up from the pits, appear black, or at least a very deep bluish black. After drying on the surface, the colour is grayish or bluish green, and after long exposure, on the outer surface of some, the earth becomes of a vivid green. This last is not liked, and the earths showing it most, are thought not to be among the best. But I saw it first, and most distinctly, at Heritage's diggings in Gloucester, of which the manure is in high repute, and very rich in green-sand, by the geologist's reported analysis. The many large conical heaps, of regular form and nearly equal size, but varying in colour according to age, from deep black to bright green, present to the eye a novel and striking display at each of the principal diggings.

There is another general, if not universal accompaniment, which particularly attracted my notice, as I had seen and appreciated the same at home in our green-sand earth. This is gypsum which is left on the surface in a white, tasteless powder, like a dusting with coarse meal, on the outside of the drying heaps of earth. I learned that the workers and users of the earth, though not knowing what this white powder is, had formed the opinion that the appearance was most decided in the earths best for manure. It appeared to me more abundant on the heaps of Allen Wallace—though his pits have been but recently opened for sale, and the earth has not yet acquired so much credit as that of Woodstown and some other places. On part of Heritage's earth, uncovered, but not dug out, the exuding fluid gypsum had dried and formed a thin crust. I cannot but believe that this gypsum is an ingredient sufficiently abundant and general in most, if not all of these earths, to add very considerably to the other and unknown causes of value as manure.

As all the diggings present the same general appearance, it would have been a waste of my limited time to visit and examine all, even of those near to Woodstown. When about to leave the last one, I asked its proprietor, Allen Wallace, what was the number of farmers taking from his diggings this season. He said about 30 persons; and he supposed that the next proprietor, Henry Allen, was supplying about as many; and the next, Richmond Dickenson, furnished considerably more than either of them. I thence computed that the three, which are all close together, and forming what I count as one locality, are supplying this season, about 100 different farmers. There are six localities of diggings in this neighbourhood, all within a circle of six miles diameter, of which Woodstown is the centre; and all these are

supplying green-sand earth largely. Add to this that there are sundry other diggings in this and the adjacent county of Gloucester, all in active operation, and some idea may be formed of the number of farms on which this improvement is now in progress. This evidence of very general appreciation would be enough to prove great value, even if the cost were less than half its actual amount.

The general rotation of crops in this part of the country, is, 1, corn, on sward or old grass land; 2, oats; 3, wheat; to which all the manure is applied in September, before sowing, and on which clover and timothy seeds are sown; 4, 5, the grass mowed and afterwards grazed; 6, pasture. The green-sand earth is generally given as top-dressing on clover, the autumn and winter after taking off wheat. The quantity of the green-sand earth applied, is usually ten loads of a wagon and two horses, and when near and cheap enough, twelve or fifteen loads are often applied. Every man would prefer to give more, but for the cost. Nearly all the persons of whom inquiries were made, concurred in the opinion, that the effects were permanent, so far as their experience or information extended; and most of them had personal experience from 10 to 15 years. Still, second dressings are given, and in some farms the third dressings have been applied, and with new benefit at each repetition. Some few doubted the permanency of effect. Dr. Whitall, of Burlington county, informed me that it was supposed there, that the effect lessened after three years.

As elsewhere, the best effects found here, are on the clovers and buckwheats; the least on wheat. Wherever applied first for, and just preceding the latter crop, very little, if any benefit has been seen. On buckwheat, the effects of the green-sand earth are very remarkable, and it is a general practice to apply it for that crop; and being done for this crop mostly by poor men, and on poor land, it is put at not more than five loads to the acre. On part of the very poor land bought by David M. Davis, for $5 the acre, he applied the earth at the rate of ten loads, for buckwheat. The land was in Indian grass (broom sedge) when ploughed up for the buckwheat. The crop made, was sold at $1 the bushel, which is an unusually high price; and the amount was enough to pay for the whole expense of applying green-sand earth, (bought and carted five miles,) the cultivating and securing the crop, and also the purchasing of the land itself. Mr. William Reeve told me of an experiment made by a neighbour, on stiff land, worn very low, with green-sand earth, applied very thinly, and an equal quantity of drawn wood ashes, on adjoining ground. The next crop of clover was pretty good on the green-sand earth, and only a tuft here and there, was large enough to strike the view on the ashed land. The value of drawn ashes as manure, is universally admitted. They are brought in large quantities from Philadelphia, and sold at Salem wharf at eight cents the bushel, and sometimes more.

Lime is used by some farmers about Woodstown, but not generally or extensively. I could not learn that its being beneficial or useless, had any connexion with the fact that the green-sand earth had been previously applied, or not. Particular opinions were opposed on this point.

Most persons thought that the green-sand earth, in very dry seasons, burnt and injured the crop. S. Lippincott thought that on this account he had once made not more than five bushels of corn to the acre, on ground that would otherwise have made 75 bushels, from its previous high improvement by the use of this earth. Others thought that it was only on gravelly and sandy soils (such as Lippincott's field was) that any such injury was produced.

As to the soils to which this manuring earth is suitable, all persons of whom I heard in Salem, agreed in the belief that it acted well on all soils fit for tillage, or grass land dry enough to make good meadow or pasture. On loams, and on the more clayey soils, (which two classes comprise nearly all the surface of Salem county,) the effect is best. It is supposed to be much less on the sandy lands. But the farmers about Woodstown, do not agree in the opinion of those whom I conversed with in Gloucester, that the best green-sand earth is inert, or nearly so, on very sandy soils. Josiah Tatum had stated to me the same, as the opinion just before expressed to him, by Edward Harris, an intelligent gentleman of Burlington county, whose judgment and experience J. Tatum said were entitled to great respect. Mr. Harris dissented from this opinion of the Gloucester farmers, and thought that if they had fully and fairly tried this manure on their sandy lands, they would have thought differently.

The lands of Pittsgrove township were mentioned to me, by several different persons, as furnishing the most uniform and extensive case of great improvement, in Salem county. The soil is of different grades of loam, and generally of medium texture. The surface is generally undulating. The original quality, or degree of natural fertility, seemed to have been good, though not by any means rich. These also seem to

have been the circumstances generally of all the lands I saw in this county, except those near to the town of Salem, which are quite level and very rich, now as well as naturally. The largest landed property of D. M. Davis, lies in Pittsgrove township, and may serve as a sample of the former general condition, and the more recent changes. I will, therefore, state what I learned of this particular property. Twenty years ago, and for some years after, this land rented for $100 a year; and after considerable improvement, and as late as seven years ago, the rent was only $300. There were formerly, about 200 acres of arable land, regularly cultivated in turn, and reduced to the lowest state of exhaustion. Since, 125 acres more have been brought into cultivation, and 20 acres more added to the farm by purchase, at $5 the acre—which here is held to be as low a price, and indicating as worthless land, as $1 the acre would in lower Virginia. Mr. Davis's occupancy and the improvement by green-sand earth, began ten years ago, and for the last seven years the land has been in the hands of two tenants, on leases of five years. The tenants were bound by contract, to apply a certain amount of green-sand; but the obligation was superfluous, as they apply much more than their obligation requires. The tenant of the larger of the two farms, was bound to apply 500 loads during his first lease. Before two years had passed he had applied 1000 loads, expecting to be amply repaid in the three next years of his occupancy. The supply is from Woodstown, and the distance five miles. The annual rent now paid on the two farms of about 345 acres, is $1,125, and the value of the land annually increasing. The proprietor furnishes rails, or materials for fencing. But the tenants are not even supplied with fuel from the land, but purchase it elsewhere. I walked through these farms, and the appearance of the crops, and especially of the clover and pasture lands, and of the heavy bullocks fatted by grazing thereupon, for market, served as abundant confirmation of all that was told me of the productiveness.

In company with Mr. Davis, and upon his suggestion, I visited still another and more remarkable scene of agricultural improvement. He had told me that there were to be seen on the land occupied by Mr. William Reeve, some of the best evidences of good farming and successful improvements by, or in connexion with, the use of green-sand earth. This farm lies adjoining the village of Allowaystown, and consists now of 200 acres of farming land, or the entire extent of fields for tillage and grass. The surface is more undulating than usual, but not too uneven or hilly. The soil of the farm (as of its neighbourhood generally,) is stiffer than any other part of the county before seen, being a pale yellow clay, which is stiff enough to be difficult to till, and to form cracks in the surface in dry weather. By the way, it may not be amiss to mention that I saw no sign of red clay soil or subsoil, on my whole route in New Jersey. The present growth of the farm, which is mostly clover, shows everywhere within the general enclosure, high productiveness and beautiful farming condition. Yet a part without the enclosure, seemed to be a specimen of as barren and worthless land as I ever saw, that was capable of producing any vegetation. It had formerly been cultivated and worn out, and had long been left out of tillage. It had a few scattering bushes, and a general, but thin and low growth of broom sedge. Cinque-foil and mouse-ear were also plenty, all these plants being deemed the strongest evidences of barren land. Some spots could not even bear either of these—but its otherwise bare surface was covered with a thin and hard grey crust, which seems to have no life, but which in fact is a kind of moss, indicative of next to absolute sterility. These several marks reached generally to the very fence, and when on the other side, and but a few inches distant, clover and other growths of fertile ground showed clearly that the hand of the farmer, and that but recently, had caused this striking difference of condition. Thirty acres here had been bought for $4.50 the acre. Such as is this outer and waste land, Mr. Reeve assured me was the condition of much the greater part of the farm ten years ago, when the estate was purchased and the improvement of the land was first begun. Some of it indeed, was much worse. For all the steeper declivities, such as were pointed out to me, then green with thickly set clover and other grasses, were formerly naked galls.

The first year of their farming, 1833, the whole land was first under one general enclosure, and all the grass was mowed that could be possibly obtained, as hay was the most important object. The whole product was five tons only. In reply to some of the jocular taunts and predictions of their neighbours, Mr. Reeve stated that he would double the first year's product of hay every year, until the amount reached 100 tons from a single mowing. In seven years, the crop amounted to 225 tons, besides the then keeping a fine stock of grazing cattle, and the regular tillage of grain crops.

The earliest operations of tillage and im-

proving (in 1833,) was to plough 12 acres in the spring, apply stone lime at 50 bushels the acre, and cultivate in corn. The next year oats. Both crops were very good for the land. Again 50 bushels of lime were applied to the acre; and before the wheat, which was the next crop, barn-yard manure was given at the rate of 10 two-horse loads to the acre. Timothy seed sown with the wheat, and clover in the spring. The next winter, after the wheat crop, applied green-sand earth, 10 tons to the acre, hauled seven miles from Woodstown. The crop of hay was two and a half tons to the acre; and its value was enough to pay for the whole expense of all the lime applied, charged at the cost when landed on the wharf, and that of the purchase and wagoning, and spreading of the green-sand earth. This year, a neighbour offered Mr. Reeve $24 for the grass then standing on a single acre, which was refused; and he sold the grass of half an acre for $15, or at the rate of $30 the acre.

Mr. Reeve knows of no land where the green-sand earth has been applied and found useless.

Among the many reports I had heard in advance, were conflicting statements of the effects of this earth on the naturally rich and very productive lands around the town of Salem. While some affirmed the benefit, others stated that the use of green-sand earth had been there discontinued. I had but little time left for inquiry on this head; but that little was enough to show that both reports were true. Enough applications of this earth had been made on these good lands, to show very good effects; but the distance to the nearest diggings was so great, and the supply of water-borne lime and drawn ashes so much cheaper and more convenient, that the use of the latter manures had nearly or entirely superseded the former.

I have aimed throughout this inquiry, to obtain and present the opinions of others, rather than to give my own views most prominency. And when the most experienced and well informed practical improvers differ so much on this subject, it could not be expected that my hasty digest of their opinions should be entirely free from contradictions. In truth, my own opinions have not remained the same, at different scenes of this hasty examination, nor even during the writing of both the earlier and the latter part of this account. While I have learned much as to the effects and value of this manuring earth, by my inquiries and personal examination, I have at the same time also learned that I was before, and still am, profoundly ignorant of the cause and manner of the action. I will not even presume to attempt any explanation of what appears to me so far inexplicable by any of the views yet set forth.

There seem to be important differences of action between the green-sand of New Jersey and that of James river. It is true that the latter has been usually applied by myself in very small doses, say 20 to 40 bushels the acre, while in New Jersey the quantity is usually 200 bushels, and often much more. But even this great difference of quantity does not at all serve to explain the differences of results—nor do the manifest differences of the different earths, or of the soils of the different regions. So far as my practical experience has extended, the green-sand earth of James river acts precisely as does gypsum, though more strongly—is limited to the same soils, to the same crops, and like gypsum, has but a temporary though more extended limit of time of action. But the green-sand earth of New Jersey, while agreeing greatly with that of James river in its visible effects, especially on clover, seems to act on nearly all soils, on most crops, and is counted as a very long enduring, if not indeed a permanent fertilizer.

All the best green-sand earths which I saw, contain no carbonate of lime, or at most and in very few cases, so small a proportion as to be of no appreciable effect. They contain—according to Professor H. D. Rogers' statements of their contents—from 85 to 95 parts of green-sand in the 100 of earth; and the pure green-sand, or silicate of iron and pot-ash, contains from 5 to 14 per cent., or generally 9 or 10 per cent. of pot-ash. Since the discovery of this latter ingredient was made by Henry Seybert, Esq,, of Philadelphia, it has been generally supposed to be the main if not the sole fertilizing ingredient. I deem that opinion extremely questionable; and, as to the green-sand earth of James river, altogether untenable. But I will not here repeat the grounds of this opinion.

The gypsum, which is certainly present in most if not all the green-sand earth of New Jersey, has not been considered by the highest authorities, as being an important ingredient. Indeed it does not appear among the contents in the many analyses stated in Professor H. D. Rogers' Report. Without claiming for it any very important agency, still it seems to me that the gypsum cannot be of so little amount or effect, as has thus been assumed. And sulphate of iron (copperas) and sulphate of alumine, (alum) which are present in some cases, need only to meet lime in the soil, or to have lime previously

mixed with the green-sand earth, to form still more gypsum, by the decomposition and destruction of either or both these salts, which are poisonous to soil and to vegetation.

For the Farmers' Cabinet.

Gravel in Swine.—The Lard Lamp.

Messrs. Editors,—Your correspondent over the signature Agricola, page 216, vol. 6, of Cabinet, will be interested to find that the disease of which he speaks, namely, gravel in swine, has been noticed by General Mansfield, of Delaware, who lost, while fatting the last year, three hogs by that malady. These were all males or barrows, and a portion of the concreted substance found in the urethra, has been preserved by him for examination and exhibition.

With me there is not the slightest doubt, that the worm in the kidney is identical with the gravel in hogs; should this be satisfactorily ascertained, it is presumed that the disease might be removed, or at least the symptoms alleviated, by the same means that are adopted for the relief of the human species, in this exceedingly distressing complaint, of which few, comparatively, die, although it is known that the disorder is very prevalent; while it is worthy observation, few hogs, when decidedly affected in this way, ever recover.

When the General related this circumstance, he added; "One of these hogs I rendered, for the purpose of making cart grease; *now*, in such a case, I should render them all, and burn them in lard lamps,"—a mode of management which will be found of immense importance to the agriculturist; every one having been made sensible of the liability he is under of losing animals by disease while fatting. And this leads me to mention with commendation, the lard lamp invented and patented by E. S. Archer, 32 N. Second st., Philadelphia, having had one of them in constant use for a month past, which has given much satisfaction; observing, that by this lamp, lard, after it has become rancid, or discoloured by fire, whilst rendering, can be burnt without smoke or disagreeable smell. The mode of conducting heat to the bottom of the lard by a copper tube, closed on the top and reaching to the flame of the lamp, by which the heat is prevented from escape until it has passed through the body of the lard, causing a constant ebullition upwards and through it, is very ingenious; forming a sort of argand burner. The stream of rarefied air forced through the copper tube to the bottom of the lard, passing through it and escaping by the wick, causes the smoke to be consumed in its passage through the flame; and the wick might be elevated so as to give a great volume of flame, without causing the least unpleasant smell or smoke whatever. I consider, therefore, the introduction of the lard lamp into the establishment of the farmer, an epoch in the economy of his household, of great importance to his future prosperity. D.

Cantwell's bridge, November 24th, 1842.

From the Western Farmer and Gardener.

Caution to Millers and Consumers of Bread.

Mobile, July 17th, 1842.

To Dr. M. W. Philips,—About a month ago, a number of negroes on the plantation of James G. Lyon, near Mobile, were seized with violent pains and cramp in the stomach, fainting fits, irritability of stomach, obstinate constipation, some with convulsions and palsy of the limbs, little or no fever, &c.; in short, all the symptoms which belong to what has been called Lead, or Painter's colic.

In a short time nearly every negro on the place was seized with similar symptoms, and it became evident that there must be some extraordinary cause at work. On investigation, *the corn meal which they had been eating, was found to contain lead which had been ground up with it*,—half a pint of lead was picked out of a bushel and a half of meal.

On going to the mill and examining the stones, it was found that the miller had, for the purpose of balancing and fixing it, *poured several pounds of melted lead into the eye of the runner stone, and this had worked loose, got between the stones, and was ground up with the meal!* The whole mystery was solved at once.

Now sir, I am informed that it is a very common thing for millers to use lead in this way, and I have no doubt that very many persons have been poisoned without ever being able to account for it, and the symptoms have been looked upon and treated as bilious colic, or some other disease.

I have just met with a similar fact, recorded in one of my foreign journals—a whole family had symptoms like those I have enumerated above, and on analysis, the flour they had been eating was found to contain lead.

Mr. Lyon has already lost four valuable hands, and a considerable number of others are almost entirely helpless from palsy in their limbs, some of whom will either die or remain useless for life.

When I say to you that every man, woman and child, is in daily danger of being poisoned by such ignorance or negligence, I have, I hope, said enough to impress upon your readers the importance of inquiring closely into this matter. Yours, &c., J. C. Nott, M. D.

A Table of Imports, &c., &c.

The annexed table, showing the value of imports and exports annually, from 1821 to 1841, inclusive—the receipts into the treasury annually, from customs, during the same period, and the value of bullion and specie imported and exported, was recently communicated to Congress, having been prepared by the Register of the Treasury, in compliance with a resolution of the House.

YEAR.	VALUE OF IMPORTS.			VALUE OF EXPORTS.			RECEIPTS INTO THE TREASURY.	BULLION & SPECIE	
	FREE OF DUTY.	PAYING DUTY.	TOTAL.	FOREIGN MERCH'DIZE.	DOMESTIC PRODUCE &c.	TOTAL.		IMPORTED.	EXPORTED.
1821	$10,082,313	$52,503,411	$ 62,585,724	$21,302,488	$ 43,671,394	$ 64,974,382	$13,004,447	$ 8,064,890	$10,478,059
1822	7,298,708	75,942,833	83,241,541	22,286,202	49,874,079	72,160,281	17,589,762	3,396,846	10,810,180
1823	9,048,288	68,530,979	77,579,267	27,543,622	47,155,408	74,699,030	19,088,433	5,097,896	6,372,987
1824	12,563,773	67,935,234	80,549,007	25,337,157	53,649,500	75,986,657	17,878,326	8,379,835	7,014,552
1825	10,947,510	85,392,565	96,340,075	12,590,643	66,944,745	99,575,388	20,098,713	6,150,765	8,470,534
1826	12,567,769	72,408,708	84,974,477	24,539,612	53,055,710	77,595,322	23,344,332	6,880,956	4,704,236
1827	11,855,104	67,628,964	79,484,068	23,404,136	58,921,691	82,324,827	19,712,283	8,151,130	8,014,880
1828	12,379,176	76,130,648	88,507,824	21,595,017	50,669,669	72,264,686	23,205,524	7,489,741	8,213,476
1829	11,805,501	62,687,026	74,492,527	16,658,478	55,700,193	72,358,671	22,681,966	7,403,612	4,924,020
1830	12,746,245	58,130,675	70,876,920	14,387,479	59,462,029	73,349,508	21,922,391	8,155,964	2,178,773
1831	13,456,625	89,734,499	103,191,124	28,033,526	64,277,057	81,310,583	24,224,442	7,305,945	9,014,931
1832	14,217,453	86,779,813	101,029,266	24,039,473	63,137,470	87,176,943	28,465,237	5,907,504	5,656,340
1833	32,447,950	75,670,361	108,118,311	19,822,735	70,317,698	90,140,433	29,032,509	7,070,368	2,611,701
1834	68,393,180	58,129,152	126,521,332	23,312,811	81,024,162	104,336,973	16,214,957	17,911,632	2,076,758
1835	77,940,493	71,955,249	149,895,742	20,504,495	101,189,082	121,693,577	19,391,311	13,131,447	6,477,775
1836	92,056,481	97,923,554	189,980,035	21,746,360	106,916,680	128,663,040	23,400,941	13,400,801	4,324,336
1837	69,250,031	71,739,186	140,989,217	21,854,962	95,564,414	117,419,376	11,169,290	10,516,414	5,976,249
1838	60,860,005	52,857,399	113,717,401	12,452,795	96,033,821	108,486,616	16,058,800	17,747,116	3,508,046
1839	76,401,792	85,690,340	162,092,132	17,494,525	103,533,891	121,028,416	23,137,925	5,595,176	8,776,743
1840	57,196,204	49,945,315	107,141,519	18,190,312	113,895,634	131,571,950	13,499,502	8,882,813	8,417,014
1841	65,019,731	61,925,757	127,945,488	15,469,081	106,382,722	121,854,803	14,481,216	4,975,883	10,034,332

ESTIMATE.

It has been estimated by some that there was of specie and bullion in the country on the 30th of September, 1820, $18,000,000; but say $20,000,000
Imported from 1821 to 1841, in 20 years. 181,589,841

201,589,841
Deduct exported from 1821 to 1841 138,085,922

Balance $63,503,919

Philadelphia Ledger.

PROMPTNESS.—Promptness in mechanics is of the highest importance. The farmer who sows or reaps out of season, will not lose more by doing things out of the proper time, than will the mechanic in a long run, by neglecting to perform work and fulfil orders as promised.

The farmer sees plainly by the operations of nature around him, the importance of promptness and despatch. If he is late in sowing, he finds that the season of genial rains and sunshine is passing away without preparation on his part to profit by them, and the green fields of his neighbour are an evidence of his loss, and spurs him on to action.

But the mechanic has less evidence of his loss by neglect. The customer that is often disappointed, may bear the evil silently, but resolve to learn by experience and look for one more prompt for the future.

Disappointments in mechanical work are serious evils; and a great many excellent workmen, who have but little to do, are among the first in their profession in skill, and could do a large business, were they as much noted for their promptness as for their skill and ingenuity.—*Farmers' Journal.*

STRAW MANUFACTURE.—The whole value of the straw manufacture in the state of Massachusetts, is ascertained to exceed two millions of dollars a year, and it gives partial employment to more than one hundred thousand persons. Few people are aware of the importance of this apparently insignificant branch of industry. It has grown up under the protective system, from small beginnings, and has prevented the necessity of exporting from this country to France and Italy, sixteen hundred thousand dollars per annum, in specie, to purchase straws, twenty per cent. less than we now have them. The county of Norfolk, Mass., exports straw manufactures to the annual value of six hundred thousand dollars; and the town of Franklin, with a population of about fourteen hundred, has produced one hundred and twenty thousand dollars a year. The labour is performed mostly by females and children, labour which would be wholly useless and unproductive. How important that this productive branch of industry should be preserved, and not struck out of existence to subserve the object of idle politicians.—*Maine Cultivator.*

For the Farmers' Cabinet.

The Cob and Corn Crusher.

At the late meeting of the Philadelphia Agricultural Society, there was exhibited a machine for crushing or grinding the cob with the corn for cattle provender; a most valuable improvement, and well deserving the favourable notice of every one engaged in the pursuits of husbandry. It has by some been questioned, whether the cob alone contains sufficient nutriment to render it worth the labour and expense of grinding; but with me there is no doubt about it, and it is only a matter of surprise that every one should not long ago have been convinced of the fact by experiment, which might easily be made by boiling crushed cobs in water for some hours, when, on straining off the water and setting it to cool, it will be found to form a jelly.

At the above mentioned meeting, I had the pleasure of conversing with the intelligent inventor of the machine, Mr. Byerly: he is a tanner, and the cob-crusher is made after the plan of his bark-mill. On inquiry relating to the quantity of nutriment contained in the corn cob, he informed me, that near his bark-mill was a heap of cobs that had been thrown out as useless, when a poor woman of the neighbourhood, whose only cow was almost the only means she had of supporting her family, came to ask for some cobs, and that he would pass them through the bark-mill as food for the cow; this he did, and his petitioner came regularly after, during the winter, to get her supply of crushed cobs. At the end of the season, he went to see the cow, and found her in the finest condition, her owner assuring him that she had been fed entirely on the crushed cobs, boiled in her iron pot, by which she had been enabled to support almost entirely, herself and children, by the sale of the finest milk and butter ever seen!

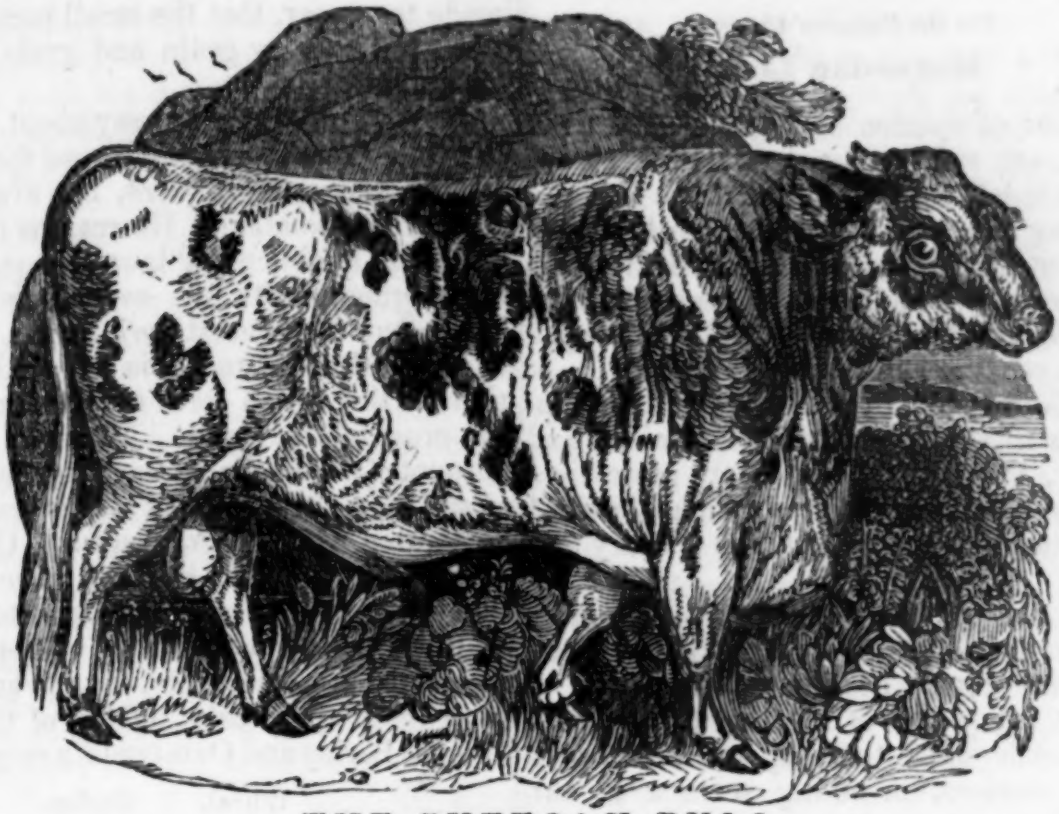
In an essay on Indian corn, by P. A. Browne, Esq., see p. 187 2nd vol. of Cabinet, it is said, "The cob may be ground to fatten cattle, and an oil may be extracted from it." It is also said, "Peter Miner, of Albemarle co., Virginia, made the following experiment; he had ten bushels of meal of the corn and cob ground together, weighing 367 lbs., and ten bushels of *pure corn meal* subjected to the process of distillation, and the result was, 18 gallons of spirit from the latter, and 13 gallons from the former. Now, if the corn cobs had been destitute of all value, the product of the former, estimating the quantity of pure corn meal at five bushels; which is the general rule, to allow one half in bulk to the cob, ought to have been nine gallons only; but thirteen gallons having been obtained, four of them must have been extracted from the cob." It is worthy of a passing remark, it is added in a note at the bottom of the page; "If they wish to cultivate Indian corn for fodder alone, or *for making sugar*, they can deprive it of the power of going to ear, and make it throw all the juices into the stalks and leaves."

I have witnessed many instances of the advantages resulting from grinding the cob with the corn, and have never known a person who had tried it, dissatisfied with the result; it is they only, who know nothing about it who object to it: at any rate the ground cob must be as good as bran, and an addition of one or two thousand bushels of bran to the means of feeding stock during the winter, would not be thought lightly of by any, one would suppose. It has been remarked, the cob is peculiarly adapted and conveniently situated for grinding and mixing with the corn; asimilating with it, and forming a meal peculiarly congenial to the health of animals; giving just the due proportion of coarse food to mix with the fine; a necessary consideration in the feeding of stock; and withal so cheaply supplied, that one is at a loss to conceive how the thing has so long been neglected. The objection to grinding the cob with the corn while it is new, could be obviated, by kiln-drying the ears the fore part of the season; but this would not be requisite more than a couple of months or so, after harvest, as by that time the ears will be sufficiently dry, so as to allow them to be ground, without danger that the meal would ferment in the binn. I remember a correspondent in a former number of the Cabinet observes, that Mr. Alexander Cooper of Jersey, has long been in the custom of grinding the cob with the corn, and that his stock is remarkable for health and condition; and from late inquiry, I find that he still continues the practice with perfect satisfaction. While on a late visit to one of the same family at Camden the last week, I observed the same mode of feeding carried out to a considerable extent, and with complete success; the meal having been ground so fine, that no one without close examination would have the idea, that it was aught but meal from clean corn. It is a great loss to the country that every mill is not fitted for the purpose of grinding the cob with the corn when desirable,—would our millers think seriously about it.

R. Denham.

Berks co., Nov. 18, 1842.

Make the hogs a warm nest. *Comfort* is cheap food for all domestic animals.



THE SUFFOLK BULL.

The above is an excellent portrait of the real Suffolk bull. Some of these animals are handsome, but the wonder is, that ere now all claims to good figure have not departed from the race, for the bulls are rarely suffered to live after they are three years old, however excellent they may be; for the breeder believes that if they are kept longer, they do not get stock equally good, and particularly, that their calves are not so large after that period. But nothing can be more erroneous or mischievous, for a bull is never in better condition than from four to seven years old. And in another point of view the practice is subject to radical objection, for before the value of the progeny of a bull can be known, he is slaughtered; so that if the cows by him turn out to be the most excellent milkers, no advantage can be derived from the discovery, the sire of the stock having passed away. And to such an extent was this absurd practice formerly carried, that having obtained, either by accident or exertions a good breed of milkers, the people have preserved them by the merest chance, and without any of the care and attention which their value demanded. And somewhat of the same system is pursued with regard to the heifers,—a heifer under two years old with a calf at her foot, being no rare object. This system of breeding before the form of either the sire or dam is developed; this tax upon the powers of nature to contribute to the growth of the young mother as well as to that of the calf, must be exceedingly injurious. She, also, at four years old often being discarded and fattened for the butcher, unless she has displayed uncommon milking properties; but even when so discarded, poor and angular as she may be, she fattens with a rapidity far greater than could be expected from her gaunt appearance. Whence she obtained the faculty of yielding so much milk, is a question which no one has yet been able to solve, for her progenitor, the Galloway, has it not, and the Holderness could scarcely be concerned, for more than a century ago the "Suffolk dun" was as celebrated a milker as she is at present, and the Holderness had not at that time been introduced; while the fattening property of the Galloway has not yet been impaired. The *grazing* property of the Suffolk has been supposed to be increased by a cross with the short-horn, but their value as milkers has been uniformly diminished by the admixture; while the progeny, although better than the Suffolk for grazing, is still inferior to the pure short-horn. Few of the real Suffolks are, however, reared for grazing; their value in this respect being decidedly inferior to the pure Galloways.

Another cause of the deterioration of the breed, exists in the practice every where observed, of slaughtering the early calves; for although the calves for rearing are selected according to the milking properties of the dams, few of the early-dropped ones, which are generally the best and strongest, are saved; the high price of veal offering a temptation which few can resist. The selection is, therefore, almost entirely from amongst the latter calves, which have not so good a chance as the early dropped would have had, of becoming strong and hardy before winter, and thus acquiring a good constitution and the certainty of thriving and yielding well.

For the Farmers' Cabinet

Magnesian Lime.

"Errors of opinion in Agriculture, as in politics, are safely tolerated, while science or truth is left free to combat them."

Having recently had a conversation with a very intelligent farmer, from another part of this county, the following dialogue ensued.

A. Do you take as much delight in agricultural reading as formerly?

B. Certainly. In addition to all the approved works on Agricultural Chemistry and Geology, Physiology, &c. in my possession, I am also a subscriber to the various standard Agricultural periodicals of this country and Europe.

A. I am pleased to hear it. But have you been enabled to make any advantageous application of your book knowledge?

B. It is a source of much gratification to me, to understand the *why* and *because* of various matters, involving science in our worthy business.

A. Have you received the last number of the Farmers' Cabinet? if so, what say your neighbours of the communication on the subject of magnesian lime, by B. Webb?

B. I have heard various opinions; some recommend a rejoinder, while others say, we have a discerning public, who will pass the article for its worth. The assertion, that he has satisfied himself, from observation and experiments, that *much larger* crops of wheat can be raised in Delaware and Maryland, than in Lancaster and Chester counties, where magnesian lime is applied, is, to say the least, gratuitous; but probably he takes the two States as a *whole* against the two counties. He is deploring the diminution in the product of grain in South-eastern Pennsylvania, owing to the use of magnesian lime, in one paragraph, and in a following one, says, in the same district, wonders have been produced by lime in *spite* of magnesia. Now this would be more excusable, if he had not added, that horses, hogs, &c. are destroyed by *hundreds*, merely by feeding on the grain and grass growing where magnesian lime is applied! On this subject, I agree with the prevailing opinion among the intelligent, and echo the approved theory of many eminent Chemists and Geologists, as quoted in former numbers of the Cabinet.

We may review this notion about the destruction of farm-stock, and can we imagine any thing more preposterous? Magnesia of itself being a mild aperient or cathartic, as a medicine, of which two or three pounds, given to a horse, or cow, at a dose, could do no serious injury, and perhaps under particular circumstances, much good; yet it is made to appear, that the small portion taken from the soil, by grain and grass, will kill animals!

B. Webb has much to say about the *pure* lime which he has applied; now the truth is, lime is *never found pure*, but always in a state of combination. He reasons from analogy, that as sheep eat laurel, so plants take up magnesia with the same poisonous results; but the merest *tyro* knows, or ought to know, that magnesia is one of the primitive earths, which form all soils, as well as the crust of the globe! Magnesia is a constituent of *all* the plants the farmer *cultivates*, as well as a constituent of *all* his grain. The celebrated work on Agricultural Chemistry and Geology, which has just gone through the press, by James F. W. Johnston, M. A. F. R. S., Honorary member of the English Agricultural Society, &c. &c.; to quote from page 58 of this work, 100 lbs. of the ash of Wheat, Barley and Oats contain respectively,

	Wheat.	Barley.	Oats.
Lime,	8 lbs.	4½ lbs.	3 lbs.
Magnesia,	8 lbs.	8 lbs.	2½ lbs.

So that in the grain of wheat, lime and magnesia are equal; while in the analysis of barley, we have 3½ per cent. more of *magnesia* than lime. On the subject of diminution in the wheat crops in our neighbourhood, farms of 200 acres before magnesian limeing commenced, have since been subdivided into three farms; of which *each* is now made to produce as much wheat as the whole did, before the subdivision; and before magnesian limeing commenced on the poor lands, in the southwest of Chester county, many there bought their wheat for bread! Now, you have no idea of the amount of their surplus. Another consequence is, our best limed farms *now* sell for $120 per acre, at the risk of magnesia, these hard times.

A Lancaster County Farmer.

November 20th. 1842.

A Chicken Yard.

We have often thought that farmers would find it to their interest, were they to enclose a yard, of suitable dimensions, with a high fence, for the accommodation of their chickens. As managed at present, left as they are to range at will about the barn and stables, and lay their eggs and set where they list, a very large proportion of their eggs are lost to their *owners* in the first place; *secondly*, fewer chickens are hatched out; *thirdly*, from having free access to the dung heaps, the young broods as well as the old hens, often contract diseases, which they would escape were they kept in a proper yard, be-

sides being less liable to be preyed upon by weasels, minks, rats and other enemies.

In this yard, we would have two divisions: in one we would keep the roosters and laying and setting hens. In the other, the hens with chickens. Into this latter yard, we would remove the hens and their young ones as they might be hatched out. The hens to be confined in coops so made as to protect them and their broods from the rain. In addition to these coops, the hens with chickens should be provided with an open shed, facing the south, in which they might be placed during long continued rains. Fresh water to be supplied in shallow troughs, twice a day, to the inmates of both departments of the yard. In each we would have a cart load of good sand, in which the fowls might dust themselves whenever they pleased. Besides this, we would have, in each yard, a small heap of ashes, as a preventive of *vermin*, and a small quantity of lime to assist in digestion and the formation of the shells of the eggs. The house in the yard allotted to the laying and setting hens should be tight, but airy and sufficiently capacious to hold the fowls with comfort. Good roosts should be provided. In the formation of the *nests*, we would have them so constructed as to *draw out*, to facilitate the operation of cleaning. Always before setting a hen we would have the drawer taken out, well cleaned, and white washed inside, which operation should be repeated as each hen hatched out her brood. The nests should be often renewed with clean hay or straw, and always before setting a hen. The old chickens should be regularly fed, *twice* a day in summer, and *three* times in winter—the young ones at least four times.

If it be objected against this plan, that it would take more to feed them than in the present one, we answer—it is not so. At present, the chickens are, or ought to be, *regularly* fed, the old ones once or twice a day, the young ones oftener. Besides this, they all have access to your stack yards, barn and stables, where they glut their appetites as often as they please. In our plan of feeding, you would know what they really did consume as well as its cost; as it is, you are completely in the dark upon these subjects. Again, it is known, that chickens, which have access to cattle in winter, are apt to generate lice on them, and that cattle thus annoyed, do not thrive well. By our plan, this inconvenience and nuisance would be avoided.

If it be objected, that the ground appropriated to the chicken yard would be lost to culture, we meet the objection by the denial of its truth, and for the following reasons.—For fifty hens, and the requisite number of roosters, an acre of ground would be sufficient, and certainly no one will tell us, that this number of fowls, with the range of the barn, stable, and adjacent fields, would not destroy, independent of their regular feed, more than the product of one acre of ground. But by our plan the ground would not be lost to culture at all; for we propose to plant in the chicken yard, say from forty to fifty *Apricot*, *Plum* and *Damson* trees, or a like number of other choice fruit trees, whose product would pay for the rent of the ground, ten times told. Placed in such a situation, we believe the trees named would hold and ripen their fruit, because from the natural insectiferous propensities of the chicken, but few of those insects, which prey upon the Apricot and Plum, would escape their watchful eyes and all-devouring beaks.

We think we have made out a case of economy in favour of our plan, and shall leave it to our readers to adopt it or not as to them may seem most meet and proper.

A few words more and we are done. The hen house, and shed should be cleaned out and white-washed every Spring, Summer and Fall.—*Amer. Farmer.*

Choked Cattle.—A friend from Wrentham informs us that he succeeds, with great ease in relieving choked cattle in the following manner:

Raise the animal's head, with a rope or chain attached to some convenient beam. Procure an old cart-wheel box, through which a man may thrust his arm. With the aid of one on each side, place this box in the animal's mouth and keep it steady. Then run the hand through it into the throat, putting the fingers carefully beyond the potatoe or apple in the way. Draw it out slowly and carefully and relief is experienced immediately. Our informant has tried it repeatedly, and thinks every farmer ought to have a cart-wheel box or something of the kind always ready.—*Mass. Ploughman.*

Last Monday we picked seven barrels full of charming Baldwin apples, from a young tree that was taken from the nursery fifteen years ago. This tree has borne more or less for these ten years past: it stands near the barn and extends its roots far in that direction. On digging up some loam under the barn, we found apple tree roots in great plenty *three* rods from the trunk of the tree. This tree is as large as four others that were set at the same time, but they had not equal advantages. The roots of trees extend much farther than most people imagine; and digging up the soil three or four feet each way from the body gives but a partial relief to the roots.—*Ibid.*

For the Farmers' Cabinet.

Fall-ploughing and Subsoiling.

In a late journey through Chester and Lancaster counties, I remarked numerous instances of fall-ploughing, and cannot but attribute much of that first and most important step in improvement, to the many excellent papers on that subject which have appeared from time to time in the pages of the Cabinet. Some of the practitioners have added another *step*, and have spread their lime on these winter-fallows,—a most essential one in the routine, and which it only remains to follow up by a *third*,—I mean *autumnal subsoiling*, when the system might be pronounced perfect. By this additional labour, the only objection that I have ever yet heard to fall-ploughing, is completely done away, and all difficulties are obviated; as there will then be no fear of the washing away of the fresh-turned soil during the rains and frosts of winter, as these will find their way into the loosened subsoil and fertilize it to an astonishing degree, by the time the spring season of working has arrived; not a particle of loss accruing, but much benefit to the next year's crop. Not that there ever has been, in my estimation, the least suspicion that any absolute loss would accrue in this way from fall-ploughing, even although the process of subsoiling should be omitted; but then it would be necessary to cut diagonal lines or furrows across those lands which lie on a declivity, to conduct the surface-water and prevent the washing of the ploughed land into gullies, taking especial care that these diagonal furrows be carried at so small an angle of descent as merely to take the water away on an easy run; else, they will be found to increase the danger they were intended to obviate, and form those gullies which they were made to prevent. With this care and attention, the benefit of fall-ploughing will be found an unmixed source of pleasure and profit; pleasurable, because expediting the labours of the spring, and enabling the occupier of the soil to enter earlier on his labours at that busy season; profitable, by enabling his land to withstand a drought without flinching, as well as be the means of relieving his soil during a wet and unkindly season; all which is effected, by laying up the land by a deep furrow early in the autumn to the influence of a winter's frost and snow. These advantages I have often urged upon the notice of my agricultural friends, aided by the pages of the Cabinet, the *last number* of which is generally my travelling companion; pointing out to them at the same time, the perfect indifference they exhibit on the score of *washing* of the soil, when they sow their crops of wheat in the autumn, although the land has been repeatedly ploughed and pulverized, and made light by manuring after oats, by which the soil is rendered so porous as to be in the greatest danger of washing to a ruinous extent: but the universality of the practice has rendered it familiar, and not a thought about the injury they are liable to sustain ever enters their imaginations; nor is there in fact any cause for fear; the certain good arising from the practice, overbalancing the imaginary evil a hundred fold.

But let it be remembered, that the earlier fall-ploughing is performed, the better, so that the fresh-turned land may derive benefit from exposure to the fertilizing influence of the sun's rays, which would be found of importance equal to a covering of manure; the first drying of the land and the after slaking by means of the rains, rendering the soil so porous as to admit the frosts and snows to shake and pulverize it the whole depth to which it had been turned, and preventing the evil so greatly feared, namely, a washing away of the surface. In my opinion, there is no improvement in agriculture at all comparable to a rigid observance of fall-ploughing, when it is carefully and seasonably performed, and accompanied by a coat of lime as a top dressing, so to lie during the winter, whether the land be designed for oats, to be harrowed in early in the spring without a second ploughing; or for corn, peas, potatoes, barley, or any other crop; convinced as I am, that such an expenditure of the lime is the proper mode of application; after which, the land might be manured, without fear that the ripening of the crop will be delayed, so as to be liable to the rust,—a common occurrence, if lime be added to the manure on fallowed land in the autumn, preparatory to the sowing of wheat; for it is the nature of lime, by its antiseptic properties, to retard the action of the dung, so as to cause it to be giving out its energies long after the time has arrived for vegetation to cease, and the ripening process to follow,—the only satisfactory mode with which I am acquainted, of accounting for the fact, that lime operates injuriously on wheat, by causing the crop to grow and continue green for too long a period.

To those, however, who have not subsoiled their land the present autumn, I would say, do not hesitate to adopt that plan of deepening and improving your soil, in the coming spring. A single trial of that most remarkable instrument, the subsoil plough, will convince any man of reflection, that the process must be beneficial to all parties,—to the soil, to

the crops, and the owner of the land; and if persevered in, these benefits will ultimately be of such value, as to stamp the system of subsoiling as one of the greatest improvements of the age. I consider it peculiarly adapted to the counties of Lancaster and Chester, as many of their lands are high and rolling, with hard and gravelly subsoils, over which the common plough is apt to pass, especially in seasons of drought, with but little effect; on these, a pair of horses will be able to work a subsoil plough to great purpose, and with such ease as to astonish those who have never witnessed its operations; much, however, depending upon the nature of the subsoil, and the depth to which the plough is sent. An ox-team is better adapted to the labour than horses; the only objection to them is, they are slower in their pace than horses, and will in a degree retard their working, as one team cannot proceed faster than the other; but this can be obviated by employing oxen for both ploughing and subsoiling; and in many cases the first furrow can be turned by one pair, and the subsoiling be done by another, it not being so necessary to penetrate with the first furrow so deep as would be requisite, were no subsoiling to follow. In the case of balks, too, the subsoil plough following, the evil is remedied effectually, without pulling back.

I find upon inquiry, there are two sizes of the subsoil plough for sale at No. 176 Market Street, Philada., the smallest of which will be found large enough for common purposes, stirring the subsoil to the depth of a foot or more. A third size is, however, being manufactured, suitable for a single horse; but whether the latter will be large enough to answer the purpose of stirring effectually the subsoil, is yet to be seen; its small dimensions would seem to fit it for horticultural purposes, and the lands of small occupiers, where one horse only is kept, but the fear is that such an implement will not be equal to the task, and then discredit might arise to a system from which, if effectually pursued, there would be no question of the most beneficial results; these, however, must not be expected to show their full effects the first season, as much of the richness of the surface-soil will at first be expended in penetrating into and fructifying the subsoil; and if this be removed to a great depth and be very sterile, the process might not be completed the first year. It is to those only who contend manfully, that the promise is made,—"In due time ye shall reap, if ye faint not." VIR.

Nov. 26th, 1842.

WHEN men speak ill of you, live so as nobody will believe them.

For the Farmers' Cabinet.

Small Farms.

MR. EDITOR.—Although I am not immediately engaged in agricultural pursuits, yet my avocations frequently call me into the country, where I probably experience as much pleasure while overlooking my friends, as they do in the full enjoyment of their possessions. Perhaps there is not on earth an employment at all comparable to that connected with the tillage of the soil, and the rearing of animals in all their varieties; but there is not on earth a greater difference between the arrangements of a well regulated farm, with means fully adequate to the end, and an estate that is too large and unwieldy for its possessor. And this brings me to the subject on which I have long thought I would trouble you with a few remarks, namely, the relative proportions between the farm and its occupant. The time has been, when a man would measure himself by the number of acres which he owned, without regard to the means he possessed of cultivating them, or rendering them profitable; but I find the feeling is hourly gaining ground, that large possessions are a "wearisomeness to the bones," and like all other cumbrous *machines*, are every instant in danger of falling to pieces by their own weight. Indeed it is strikingly apparent, that the possession of thousands of acres, is no longer considered synonymous with thousands of dollars, on the principle, it is presumed, that the most valuable articles are generally "packed in small parcels," if you will allow the use of a term that savors strongly of the store; and a farm might as easily be too large, as a store may be too "large and long," and expensive.

In a late journey to Pottsville, I made arrangements with a friend who resides in the neighbourhood of Allentown, to accompany him home in his market wagon, where I spent some days in an excess of pleasurable enjoyment; and if I had the power to describe my host, his wife and young family, with his house and land, and the manner in which every thing is arranged and conducted, I think you would feel an interest, second only to my own, as I am not unacquainted with the devotion which you also feel for the delightful occupation. My friend purchased five years ago, with the proceeds of a legacy left him by a relation, 460 acres of land; settled himself upon it and married, with the prospects of long life and prosperity,—so far well; but he soon found that he possessed too much land; and to attempt to cultivate it all, would be to make a toil of a pleasure; instead then, of cultivating a part, and allowing the remainder to lie in a state of na-

ture, until he might require it, during which, it would bring him no return, as "land pays no profit," he wisely determined to sell the greater portion, and lend the purchase money at 6 per cent. interest, to that portion of the land which he should reserve. He therefore disposed of 300 acres for nearly the sum which he paid for the whole; devoted his energies to the 160 acres remaining, which now form a snug farm surrounding his house, of almost unexampled beauty and richness, the capital invested, enabling him to do all that he might wish in the way of improving his land, &c., to the utmost; so that if he be desirous of obtaining improved machinery, an increased quantity of manure or assistance in the way of extra culture, he has the means of procuring it at his finger's end. The consequence is, he feels himself above his work; his labours are performed in season, and his mind, relieved from anxiety, is easy, and his temper pleasant; a state of things plainly discernible amongst the members of his family, within doors and without. His servants are respectful and obliging in their manners, and serve him with *fear*,—but it is with fear to offend. But when I think of his fire-side comforts, I feel more than I can express, for you must know that I am a bachelor of many years' standing, and have never known, in reality, the true meaning of a state, for which the French language has no term by which to express it, namely, *fire-side comfort.* Nor does it appear to me, that a fire-side in town can ever be comparable to one in the country, where so much of the happiness of a family depends on the individuals composing the magic circle,—but this is a tender subject, and I confess my inability to handle it. Suffice it to say, if there be a paradise on earth, my friend has found it; and in the society of as fair and lovely a helpmate as need be wished for the solace of man, may he long live and enjoy it.

The land is divided into eight fields of twenty acres each; the road leading to the house, separating them into four fields on the right, and four fields on the left; and into each of these and over almost the whole, he has a view from his sitting room window, the house standing on an eminence, with trees at the back, but none immediately in front; a verandah, the whole length of the house, forming a shade far preferable to that afforded by trees. These eight fields give the opportunity of adopting a rotation of crops, and a mode of management so simple and easy of accomplishment, that his labours seem to be reduced one half; while the custom which he has adopted, of hiring extra help at hay-time and harvest, as well as on other pressing occasions, leaves him so much leisure, that he has time for observation and reflection and the cultivation of the mind, which enables him to take advantage of the seasons, and to look forward and around with wonderful effect. His grand secret of management, as he terms it, is to be ever carrying some kind of dressing on his fields, to enable him to double his crops, now that he has reduced the number of his acres: to this end, he is always on the alert to turn every thing into manure; the burning of weeds and hassocks, with any rough brush, and the corn-stubs of his twenty acres, affording the means of dressing his compost-heaps with ashes to a very great amount and at trifling cost; while a muck-hole at the extremity of the estate is a never failing mine, from whence, in the shape of hundreds of loads of vegetable deposit, he is coining old gold; every field having its compost-heap in different degrees of preparation, ready to go abroad at the time appointed; having rigidly adopted the plan of never carrying on the fields the manure from the cattle yard, but using it as an ingredient of primary importance in the formation of his compost-heaps, which are repeatedly turned over and thoroughly pulverized before they are spread; lime forming a great proportion, after fermentation in the manure, &c., has nearly past, and a proper degree of decomposition has taken place, but not until then; the lime for this purpose having been slacked long before, and become mild or effete. And these dressings are given to those crops intended for cattle, as well as to corn, (but never to other grain crops,) in the greatest profusion, without fear for the result. Forty acres, or two fields of 20 acres each, are kept in permanent grass, to be brought under culture at the end of 6 or 8 years; a like proportion of the arable portion being laid down the year before these are broken up;—these meadows in the mean time being drest as often and as heavily as possible during their time of rest, by which he is enabled to take two crops of hay, or three cuttings for soiling, every summer. But I must stop, for I have customers coming in, and my dream of happiness must be suspended for the present. Should what I have written be found worthy your acceptance, I may one day resume the subject, for agriculture is indeed "a science that can never cloy." Your subscriber, S. T.

Market Street, Philadelphia, Nov. 9, 1842.

Wounds and bruises on horses.—Take one quarter of a pound of saltpetre, half a pint of vinegar, half a pint of spirits of turpentine; put them together in a bottle, and shake up before using. Apply it to the wound with a feather, three times a day.

The Thames Tunnel.

The Tunnel has now completely reached across the river—a distance of 1,200 feet—and the projector and engineer had the gratification, a short time since, of being the first who walked from bank to bank, to the shaft on the London side. Those shafts on both sides of the river, which are intended for foot passengers, are really grand things. They are a succession of staircases going round a vast circular excavation, between seventy and eighty feet deep, and when they shall be all lighted with gas, will be among the most extraordinary parts of the whole structure. Even now they strongly realize the poetic conception of the descent into the caverns of the Egyptian mysteries; and the view of the interior, nearly a quarter of a mile in extent, lighted with a long succession of melancholy flame, would probably have suggested to a Greek the image of an entrance into Tartarus. But, in our day, the sublime is well exchanged for the practical, and this vast and formidable-looking cavern will be stripped of its poetic associations by the passage of carters and wagons, bales of goods and herds of bullocks. Still it will be almost impossible to divest ourselves of the recollections really attaching to this work. We have before us altogether a new attempt to conquer nature—a great experiment to make rivers passable without boat or bridge; a new and capable contrivance for expediting the intercourse of mankind. The stone bridge is at all times the most expensive edifice in the world, and the bridge of boats is always liable to accidents, and almost certain to be broken up in every instance of a flood. Besides this, the fixed bridge blocks up the navigation of the river for all vessels beyond the size of a barge or a small steamboat. Waterloo bridge cost upwards of a million—London bridge about as much more—Westminster and Blackfriars bridges, which were built at a cheaper rate and in cheaper times, so constantly demand repairs that they probably have cost more than either of the modern ones; but the Tunnel has the advantage of giving a passage from side to side of the Thames, where from the breadth of the river a stone bridge would have probably cost nearer two millions than one, and where no bridge could be thrown across without blocking up the most important part of the Thames, that portion which may be called the great wet dock of London. Yet the expense of the whole has not amounted to more than £400,000; and even this is to be remembered, as an expense greatly increased by the utter novelty of the experiment, by difficulty unforeseen in the commencement, by several irruptions of the river, by the dearness of workmen's wages, arising from the peculiar peril and singular nature of the labour, connected with an undertaking carried on at all hours, and wholly by artificial light. All this, too, in constant hazard of an influx of the river, and the various difficulties belonging to working in a mine. The weight of a vast body of water above, acting alike during summer and winter, which at any moment might break in, and against whose incursions, it was necessary to fortify the outside of the tunnel as the interior, added greatly to the difficulties of the undertaking.

The original object of the tunnel, was, to convey cattle, passengers, and general traffic from the rich counties on the Kent side, to that great mercantile region of the metropolis—the London, and East, and West India Docks. How far this will be now effected, is a question which remains to be decided by experience. There can be no doubt that if the traffic be not impeded by the fear of passing under the river, it must be immense. The convenience of escaping the long circuit up to London bridge, which, from the various obstructions in the streets, and the general difficulty of passing through the most crowded portion of the city, must now occupy many hours, would obviously direct the whole current of the traffic into the tunnel. Hitherto, no expedient has been adopted to shorten the passage of the traffic; and the contrivance by which 1,200 clear feet are substituted for at least three miles of the most encumbered thoroughfares imaginable, must be adopted as a matter of palpable advantage. Still there may be difficulties in the way which practice only can exhibit. But any fear of the structure itself we should regard as altogether visionary.—The building of the tunnel seems as solid as a rock. During the whole period from its commencement, we have not heard a single instance of its giving way, vast as the pressure was from above, and trying as were the damps, the ground spring, and the extreme difficulty of building under water. At this moment the roof is obviously as free from damp as the roof of St. Paul's!—and unless an earthquake should burst it, the whole fabric seems much more likely to last than were it exposed to the diversities of temperature, the heats and frosts above ground. The especial advantage of the system of the tunnel is, that it can be adopted in any part of the course of a river, and even in its widest part, (for few European rivers exceed the breadth of the Thames at Rotherhithe, unless where they spread into marshes or lakes,) and yet offer no impediment to the navigation.

Blackwood's Magazine.

For the Farmers' Cabinet.

Wearing Flannel.

Health to the farmer, as to all others, is a consideration of the *first* importance. But we find him more careless on this point than almost any other class, probably because his habits and pursuits, best entitle him, by the immutable laws of nature, to the largest share of its blessings. Active exercise in the open air, frugal regimen, and the absence of many causes of mental disquietude, are all favorable to the maintenance of health. Still there are many errors unwittingly committed, which if corrected upon true physiological principles, would tend to the lessening of human ill. With a view to correct one or two errors which I conceive to exist, I beg leave to suggest a few hints respecting the necessity, and proper mode of wearing flannel.

Flannel, I consider, should be worn at all times; and that wearing it promotes individual comfort. In this latitude, it is probable that to the majority of persons, its use the year round, would be more agreeable than otherwise, if the texture of the material be changed to correspond with the season. Many, however, will prefer discarding it in summer, and this may at any time be done with impunity, by others than invalids.

The idea of flannel rendering its wearer effeminate, has been prejudicial to its free use, and to health. The covering of all animals, except our own species, is adapted to their necessities, sufficient at all times to afford them protection from the ordinary vicissitudes of the weather. That we require clothing all agree; let us therefore imitate nature, by using a sufficiency to gratify our feelings of comfort, and the opposite of effeminacy will be the consequence.

Another false impression exists, of the danger of leaving it off, when it becomes desirable to do so. When the weather is such that the wearer would feel better without it, no fear need be apprehended in relinquishing it at any moment. So far indeed from such being the case, I cannot too strongly recommend the practice of laying it aside at night, and sleeping in a cotton night shirt. The primary object of wearing flannel under clothing, is to preserve the body at a comfortable and uniform temperature. Wool being of light weight and an imperfect conconductor of heat, is the best material to convert into such garments, but at night it is not required for the sake of warmth. An individual in the interior of a close dwelling, is not exposed to the same vicissitudes of cold and heat, as he is when passing abroad, to and fro, during the day, whilst the bed covering that may be at pleasure increased, affords ample protection from too low a temperature; hence flannel is not necessary in bed. But leaving it off for that period, conveys positive advantages. One of the benefits of flannel, is the friction it excites on the skin, determining the blood to the surface and promoting a general circulation of the vital fluids to the extreme parts of the system. Now by wearing it constantly, the cutaneous surface becomes familiarized with its effect, until finally its influence as a counter-irritant is gone. If laid aside, however, for the night, such is not the case, as all can bear witness who are in the habit of doing so. Another argument in favor of the practice, may be derived from its cleanliness. The garment being suspended in the air during the night, becomes ventilated, and in a measure purified, and in warm weather, when moist from the perspirable matter, is dried.

No fear of "catching cold" need be entertained in adopting this plan. The timid may be confidently assured, that those who wear flannel during the day, and during the day only, are much less obnoxious to all diseases of the chest.

Many good and sufficient proofs of the general benefits of woollen next the surface, might be adduced, but they are such as have been frequently presented to the public. My object in this brief essay, has been to draw the attention of my agricultural brethren to one or two points which I regard as of considerable importance, and which though well established among the intelligent of the medical profession, are not so well known as they should be, to the people at large.

Hereafter I may take up other subjects of a kindred nature. Medicus.

Agriculture.—Rev. Mr. Choules in a discourse on Agriculture, says that the first book on culture as a science, was published in England in the sixteenth century. The first reward for an essay on Agriculture, was given by the celebrated "Protector," Oliver Cromwell. But the great era from which all the triumphs of Agriculture now date, is 1793, when under the auspices of Pitt and Sinclair, an Agricultural survey of England was ordered, and public attention directed to this important subject. Peers placed their sons with practical farmers for instruction, Chemistry was soon called to the aid of production, and agriculture took its proper rank as the first and noblest science.

It is said, the wheat crops of France, have been almost doubled within the last thirty years; and the potatoe crop, more than quadrupled within the same period.

For the Farmers' Cabinet.

Orr's Air-tight Stove.

A CONSTANT reader of the Cabinet, who has had some experience and much exercise in the way of stove dealing, wishes to know if the editor is ready to endorse the account which appears over his signature at page 174, in vol. VI., highly commendatory of Orr's air-tight stove; or has an additional year added to, or diminished his confidence, in its qualifications there specified? If he still continues to consider it the *chef d'ouvre* in the art of stove-making in this *land of stoves*, he would oblige one who is again afloat, or rather *aground*, seeking for the best stove for chamber or parlour purpose after repeated disappointment, if he would so declare. Any thing relating to this inquiry, in the way of explanation, recommendation or even condemnation, would oblige many readers of the Cabinet, amongst whom a stove, found to embrace the qualifications described as above, would be a great desideratum, particularly in the facility with which a fire may be kept in the bettermost room of an evening, to enable the owner to give a casual visiter a *warm* reception, and as quickly to extinguish it, when no longer requisite. The writer has at present three wood stoves in operation, which together, keep one man pretty busy in sawing and splitting wood for their supply; but if the editor's account is to be relied upon, he would calculate that one half the labour and expense might be saved. The people in this part of the country have not yet had an opportunity of seeing the air-tight stove, nor would they have known of it, perhaps, but through the pages of the Cabinet. In the event of its still continuing to be approved, would it be too much to ask if a drawing of it could be furnished, with directions for its use, and any observations that might be thought interesting to persons at a distance from the place of manufactory. If all is, as has been represented, a great many stoves would find, in this part of the country a ready sale. An early attention to the subject would oblige, as the weather just now admits of no delay. S. R.

30th of Nov., 1842.

WE endorse with pleasure and satisfaction our account of Orr's air-tight stove. It has never deceived or disappointed us, but still continues, after a year's experience, to be the greatest comfort and the cheapest luxury in our household establishment. In every instance have our calculations been verified, and often indeed have we been led to observe that our estimate of its value has been below its merits. We commenced the present season with another of these stoves, and have now two in constant operation, with reason to repeat, that we expect to save about the cost of the stove in fuel during the year. There is still another convenience to be added to those enumerated by our former correspondent, J. C. M. at page 173, vol. VI., to which we refer our readers; and which we experienced the value of during a time of sickness, when the stove, carefully closed, with the fire in it, was removed to an upper apartment by a single individual, and placed in its proper position in two minutes; and in less than a minute after, was blazing away, without the labour, noise and filth of lighting, or the loss of heat consequent on a first kindling.

It must be remembered, they are designed for the consumption of wood only; the desideratum being, to be able to ignite and extinguish the fire suddenly, which could not be effected if coal were used. If on closing entirely the stove at night, it be found in the morning that the fire has been *completely* extinguished, it can be re-kindled by burning a piece of paper on the remaining charcoal, and the heat will be found instantly to penetrate the sides and top of the stove without further trouble.

It gives us pleasure to be able to furnish an engraving of the air-tight stove for the satisfaction of our correspondent; and to inform, they are now made of very superior material and workmanship, by W. W. Hughes, agent to the patentee, No. 45 Walnut Street, Philadelphia, at the prices of 7, 8, 10 and 11 dollars, according to size and embellishments. The seven dollar stove is large enough for the chamber; while that at ten dollars, is suitable for a large parlour, or for two rooms, communicating by folding doors. When the stove is removed at the end of the winter season, it should be well cleaned inside, and receive a coat of linseed oil inside and out, which will effectually protect it from the effects of the atmosphere. JAMES PEDDER.

For the Farmers' Cabinet.

Magnesian Lime.

Messrs. Editors,—Your correspondent, B. Webb, throughout his ingenious essay which appeared in the last number of the Cabinet, has wholly overlooked or mistaken the objects I had in view, in the essays on magnesian lime. He has set up a target of his own manufacturing, at which to let fly his arguments. The real question at issue, is not whether magnesia or sand is useful as manure, or whether any farmer would buy sand or magnesia, instead of lime, at the same price, if he had his choice. At least I never made such an issue, and shall not therefore undertake to defend the side he has assigned to me in the discussion of it. I have never undertaken to show, that magnesia is of itself useful as a manure. I have never even said that magnesian lime was superior to pure lime as a manure. I only ventured to make some suggestions on this point, as interesting and important subjects of inquiry to the practical farmer, and to which I intend again to direct his attention.

The doctrine of Tenant and his followers, it is well known is, that "magnesian lime, (not magnesia,) is exceedingly injurious to vegetation." Now, in opposition to this I did say, and again repeat the offence, if it is one, that the whole experience of the farmers of South-eastern Pennsylvania, is diametrically opposed to this doctrine; and that whatever improvement they owe to lime, it is to magnesian lime and to no other. I mean, however, only to speak in general terms;—I do not assert there is no limestone in that part of the country free from magnesia, or containing only a small portion of it. What I assert is, that the lime has been there generally used, without any knowledge whether it contained magnesia or not, and without any such perceptible difference in the effects of different parcels, as to induce the farmers to quit one kind and adhere to the other. And further, that some of the quarries, the lime from which has long been held in high estimation for agricultural purposes, have been found upon analysis to be highly impregnated with magnesia. Are these facts or not?

If your readers will turn to the essays I have heretofore sent you on this subject, I think they will labour under no misapprehension as to the issue I have made. I have again and again stated it as a fact, that magnesian lime has proved highly beneficial to the agriculture of South-eastern Pennsylvania, and challenged contradiction, if it be not so. And who has controverted it? Not any one. Even your correspondent admits it; for he says, "no one has ever denied it,—no one has even insinuated that magnesian lime is not beneficial to the soil." Now, here one would suppose the controversy ought to end, for this position is all I ever really contended for. But Mr. Webb has entered into a long investigation and argument, to show that *magnesia* is deleterious, or at least valueless as a manure; and that if magnesian lime has proved beneficial, it was owing to the lime it contained,—the good effects of which were more than sufficient to counteract the bad effects of the magnesia, and that in no case can we expect that a mixture of lime with foreign substances will be equal in value to lime in a pure state. The fair inference from which I presume is, that magnesia and other foreign substances, if not actually deleterious, when combined with lime, must at least be inert and valueless; and consequently, that the quantity used, must be increased in the proportion at least of the foreign matter contained in it, to produce the desired effects. But is this the fact so far as relates to magnesian lime? In that part of the country where this kind of lime has been longest in use, I believe 60 bushels are considered about an average dressing for an acre of land, and from such dressings very beneficial effects have been derived; while of mild or pure lime, from 50 to 200 bushels are considered as a moderate dressing, and as much as 500 or 600 bushels have sometimes been spread on an acre with advantage, at least so say the books. Now, the natural inquiry is, does this increased quantity of pure lime produce increased beneficial effects over the limited quantity of the magnesian? Will an acre of land dressed with 600 bushels of pure lime, yield ten times as great an increase of crops, as one dressed with 60 bushels of magnesian lime? This is the only point, as I conceive, now at issue between us, which is at all likely to interest the farmer; and it is one that has hitherto been pretty much evaded or overlooked by the advocates of the superiority of pure lime.

The experience of the farmers of South-eastern Pennsylvania, continued through a long course of years, and spread over a wide district of country, containing a great variety of soils, having fully established the fact, that magnesian lime is not necessarily deleterious to vegetation, but that the Pennsylvania variety of it at least is highly beneficial, the next most material point to be investigated is, what is its economical value for the purposes of the farmer, in comparison with pure lime. Is it more or less costly, to use in proportion to the good effect produced?

To procure pure lime in sufficient quanti-

ties for agricultural purposes, we must resort to beds of stone containing it, if any such are to be found. The cost therefore of this kind of lime, cannot be much less than that of the common magnesian variety, for in both cases the principal value or cost of the article, is the labour and fuel employed in its production. Now, if we suppose that four times as much of the pure, as of the magnesian, may be used at a dressing, it will evidently cost nearly, or prehaps quite, four times as much in the one case as the other. But will there be four times the benefit, present or prospective, derived from the pure lime as from the magnesian? Because, after all our discussions, this is the point most interesting to the practical farmer. According to Mr. Webb's doctrine, there ought to be even a greater difference than the above. To the farmer we must refer the point for a satisfactory solution.

Should Mr. Webb even succeed in establishing the position, that magnesia is deleterious to vegetation, I cannot perceive what relevancy it would have to the subject in hand. It is not about the properties of *magnesia*, but of *magnesian lime*, that we are inquiring. In the latter case, the magnesia is in a state of intimate union, perhaps of chemical combination, with the lime. In this state it may produce effects, that neither of its constituents would do singly. It is altogether uncertain, whether if the two earths were mixed together artificially, in the proportions found in nature, they would produce the same effect as the native magnesian lime does. Bodies chemically combined, often possess very different properties, from their constituents,—sometimes more active, sometimes more inert,—and in this state may be capable of entering into further combinations, which their constituents are not. The combination of lime and magnesia may neutralize some acid,—exert some pulverizing power on the soil, or some quickening or solvent power on inert vegetable matter, which neither of its constituents would do singly. These questions, however, are but of secondary importance to the farmer. The great leading one is, the comparative value of the two articles as a manure.

S. Lewis.

Pottsville, Nov. 24, 1842.

It is stated in the New England Farmer, that B. V. French, Esq. of Braintree, Mass., raised more than 22 tons of white carrots per acre. And he thinks that subsoil ploughing his land in the spring of 1841, contributed very much to increase the crop of 1842.

The Backwoodsman.

BY EPHRAIM PEABODY.

The silent wilderness for me!
Where never sound is heard,
Save the rustling of the squirrel's foot,
And the flitting wing of bird,
Or its low uninterrupted note,
Or the deer's quick crackling tread,
And the swaying of the forest boughs,
As the wind moves overhead.

I stand upon the mountain's top,
And (solitude profound!)
Not even a woodman's smoke curls up
Within the horizon's bound.
Below, as o'er its ocean breadth
The air's light currents run,
The wilderness of moving leaves,
Is glancing in the sun.

I look around to where the sky
Meets the far forest line,
And this imperial domain—
This kingdom—all is mine.
This bending heaven—these floating clouds—
Waters that ever roll—
And wilderness of glory, bring
Their offerings to my soul.

My palace, built by God's own hand,
The world's fresh prime hath seen;
Wide stretch its living halls away,
Pillared and roofed with green.
My music is the wind that now
Pours loud its swelling bars,
Now lulls in dying cadences;—
My festal lamps are stars.

Though when, in this my lonely home,
My star-watched couch I press,
I hear no fond "good night"—think not
I am companionless.
O no! I see my father's house,
The hill, the tree, the stream,
And the looks and voices of my home,
Come gently to my dream.

And in the solitary haunts,
While slumbers every tree
In night and silence, God himself
Seems nearer unto me.
I *feel* his presence in these shades
Like the embracing air;
And as my eyelids close in sleep,
My heart is hushed in prayer.

Domestic Economy.—One of the great arts of Domestic Economy is greatly overlooked. If we would bring our philosophy into play, and regulate our *wants*, by our *means*, instead of continually toiling to bring our circumstances up to our wants, what a vast amount of suffering, would the world be spared! *Wants* are very apt to be ahead of *means;* and if you set the *latter* to chasing the *former*, there will be no end to the race. By putting the yoke upon the desire of acquisition, we need not fear, that *industry* and *enterprise*, will be discouraged. It is well to remember the saying of Cotton,

"In this the art of living lies;
"To want no more, than may suffice,
"And make that little do."

For the Farmers' Cabinet.

The Hessian Fly.

A few years ago I commenced the business of farming, more for the purpose of a pleasant relaxation from professional life, than with the hope of gain; and my fondness for the occupation, has led me into many experiments and much close observation of things, pertaining to the subject of agriculture; and I do not know but it may lead me to trouble you and your readers occasionally with the result of them. If I supposed I could add any thing to that spirit of enterprise, which you and others seem to have awakened among the farmers of this day, or suggest an idea which a practical farmer might turn to a valuable account, I should feel gratified. In my pursuit of information on this subject, whenever I have found an opinion with regard to a fact,—a cause, or an effect, to be generally entertained by farmers whose attention has been called to the subject, I look upon it as entitled to respectful consideration, even if it does not at once command entire belief; it is worth a book of philosophical theory.

As you know, this is a wheat growing district, and our farmers may be supposed to know something of whatever concerns the cultivation of that grain. They entertain an opinion with regard to the Hessian Fly and its appearance, which is natural, and which my own observation has convinced me is in accordance with the truth. It is a big-bellied insect, which makes its appearance in the fall, when the mildness of the weather will admit, especially at that season called *Indian summer*, and its coming is easily discovered; when it alights upon the ground, it divests itself of its wings and assumes the appearance of a large black ant, and from its hurried manner, seems to be seeking a place of deposit for its egg; this it soon finds, either in the crevices of the ground, under a clod, or in the wheat plant; and not always in the latter as is sometimes supposed. After the egg is deposited, the insect seeks shelter for itself in the ground, where it remains during the winter; and either it or its progeny appears again in the spring, to go through the same work of destruction. The opinion is entertained by some, that the egg deposited in the fall, remains to be hatched in the spring,—but not so; nature makes better provision for her creatures, than to cause the egg to be laid in the fall, exposed to the frosts of winter, to be hatched in the spring. The egg laid in the fall does its injury to the grain, then or not at all; its effect is then perceptible; and it is the re-appearance of the fly in the spring which repeats the evil. My observation has convinced me, that this is the Hessian Fly; and that there is a most infallible remedy for its destruction—as certain as it is simple—the use of the Roller. A very little care and observation, at that season of the year when the farmer expects its approach, will discover its presence; and then is the time, whether it be spring or fall, to roll the wheat-fields: the weight of the roller not only destroys the insect itself, whose size and shape prevent escape, but it destroys also the tender egg, whether deposited in the wheat plant or elsewhere. I have used the roller for six years, and I have never seen the effect of fly in my wheat; while crops around me have been partially destroyed by it.

W.

Carlisle, 30th of October, 1842.

History of War.—"I wish I owned all the pasture land in the world," said Bob. "Well, I wish I owned all the cattle in the world," said Ned. "How could you feed them?" asked Bob. "I'd turn them into your pasture," said Ned. "No, you wouldn't." "Yes, I would." "No, you *wouldn't*." "Yes, I *would*." "You *shan't*." "I *will*." Then came the fisticuffs, and there was a drawn battle. First, one was uppermost, and then the other, for the *animals* were pretty nearly matched. At length, by some unlucky movement, Ned got undermost, and in such discouraging circumstances, that he had no hope of retrieving his *fallen* fortune. "*Would* you turn your cattle, into my pasture," asked Bob, "if you owned all in creation, and I owned all the land?" "No, I wont!" cried Ned. And these *brave* fellows let go their gripe, and again stood erect. But though Ned had, for the moment, succumbed, the spirit of *fight* was still rife in his bosom. Watching his opportunity therefore, he threw himself with his whole force, upon unsuspecting Bob, and made him, in his turn, feel that his own case was hopeless. "Will you let me turn my cattle into your pasture?" enquired Ned, accompanying the inquiry with a thrust into the *midriff*, which seemed to *hurry* the spirit of accommodation into him. "Yes, I will," shouted Bob. They again got up, and "shook their plumes,"—these penniless vagabonds—and *felt* how nobly they had struggled for their *rights!*

Let no man be ashamed to work. Let no man be ashamed of a hard fist or a sunburnt countenance. Let him be ashamed only of ignorance and sloth. Let no man be ashamed of poverty. Let him only be ashamed of idleness and dishonesty.

Extracts from an Address lately delivered before the Chester and Delaware county Agricultural Society, by Paschall Morris, Esq., of Allerton Farm, near West Chester, Pa.

"THE high honour of introducing the turnip culture into England, belongs to Lord Townsend. His attempts were ridiculed and himself made the object of derision, by being styled *turnip Townsend;* he, however, lived long enough to see his favorite culture extend, and to feel himself a benefactor of his country; in half a century the turnip spread over the three kingdoms, England, Scotland and Ireland, and its yearly value at the present day, is not inferior to the interest of the national debt,—its culture being worth many millions sterling to the single county of Norfolk!

"The next great era in English agriculture, was the work of Jethro Tull, introductory to the drilling and horse-hoeing husbandry. His idea was, that the thorough pulverization of the soil and the extirpation of weeds, were the only requisites to successful culture; and he went so far as to assert, that the only use of manure was to divide the soil and render it permeable to the atmosphere; which could be better performed by ploughings and stirrings; and it cannot be denied, that his system is to this day the basis of the superiority of British agriculture, although his enthusiasm, probably carried him too far in defence of his favorite theory: and we have all experienced the advantages of repeated hoeings amongst corn, even after the weeds have been eradicated, by the exposure of fresh surfaces of earth to the atmosphere, so as to enable them to absorb the different gases, which by the greater porosity of the soil, are carried down to the absorbent vessels of plants: and I have this season realized the benefits of Tull's system, in the cultivation of a crop of sugar beets, by giving the land two extra ploughings and repeated harrowings, before sowing; the effect being the destruction of millions of weeds; and this is precisely Tull's theory. To these two men, therefore, Lord Townsend and Jethro Tull, and the many other able and scientific writers, who have contributed to spread the principles and practices which they originated, are we indebted for more solid happiness, than to the schemes of all the politicians that have flitted on the stage, from that day to the present; they were the real benefactors of their species, animated by the noblest kind of ambition,—that of doing good.

"The same age is also strongly marked by other striking characteristics, such as a judicious rotation of crops, improved machinery and farming utensils, the improvement of live stock, the use of lime, the formation of agricultural societies, and the great increase of agricultural authors, amongst whom Arthur Young and Sir John Sinclair, stand conspicuous. Those who do not appreciate the benefits arising from agricultural societies, and who ridicule agricultural publications, under the epithet 'book-farming,' would do well to trace the causes which have produced in England a system of productive agriculture, which has no parallel in history, and which enables her with an extent of territory not larger than one of our states, to sustain a population greater than that of our whole country. Such an examination would show this to be the result, first, of the speculations of her scientific writers; second, to the early formation of agricultural societies, and thirdly, to the wise policy of her government in protecting her home industry, and encouraging her manufactures; to afford at all times a good and certain market for the produce of her farmers. The unerring maxim, that the prosperity of every state, is indissolubly connected with a high state of agriculture, and that whatever tends to uphold that interest, upholds every other, has never been lost sight of by her statesmen; and from her restrictive policy, except in cases of extreme necessity, she has never varied.

"I know it is customary to meet every attempt to introduce the practices of other countries amongst us, by alluding to the high price of labour, to the difference in soil, climate, and other circumstances; their plans are said to be too expensive; but the true question is, not whether a new system will cost more than our own, but whether it will pay for that cost? If it will, the argument on the score of expense must fall to the ground. And as to labour, it is the opinion of those who have examined the subject, that there is not so vast a difference as is generally supposed, our working days being more numerous, in consequence of our drier climate. Then we have our long, mild autumns; our implements are much better than theirs, while our climate is natural to their crops, and peculiarly adapted to the growth of that king of vegetables, Indian corn, which has been denominated the meal, meadow and manure of the farmer.

"It is often made a sufficient objection to an innovation, that it comes from England, and is, of course, unsuitable for our adoption. Now, although it be true, that many of her operations are impracticable here, it should be recollected, that the *science of agriculture* applies to us, as well as to them;

the laws which control vegetable life; the substances of which plants consist; the sources from whence they derive their food; the constitution of the atmosphere, the laws of chemical combination; the constituent properties of manures, and the correct mode of their application, are the same in both countries, and the same *every where;* that the splendid stock which this day graces our exhibition, and is a credit to the country; and the improvement in the breed of our cattle, sheep, &c., which pervades every part of the country, and contributes so much to its national wealth, are all founded on English importations; and that the breeding of stock in England is reduced to a science, to the successful pursuit of which, by a Bakewell, an Ellman and a Colling, we are indebted for our Bakewell and Southdown sheep, and our unrivalled Durhams! We are comparatively a new country, with but limited experience; and while we boast the same anglo-saxon blood in our veins, and derive from her our laws and language, must we reject the light which has been poured upon the most important pursuit of man, by her scientific authors, merely because it is English! A thorough imitation of the methods there practised, is not recommended, but it is an interesting question, how far they can be adapted to our circumstances. It has been ascertained, that lands in England yield larger averages of produce, than they do in this country; for in their best cultivated districts they name 40 bushels of wheat, oats 60 to 80, potatoes 400, rye 30 to 40, turnips 30 tons; every acre maintaining an inhabitant; but then they appear to excel us in a more thorough preparation of the ground for crops; complete extirpation of weeds; judicious alternation of crops; greater care in the management and application of manures, and the breeding of stock.

"My own limited experience seems to preclude the propriety of making any suggestions, as to the advantage of altering any of our present courses of management; but I would venture a few remarks on two or three heads, which I am not able to perceive but are as applicable here as any where; and first, with regard to the ploughing and preparation of the ground, for this is one of the most important operations of the farmer. There is reason to fear that this is done in some places by merely skimming the surface; but in England it is considered so material, that it is in a measure separated from the other business of the farm, and made a distinct occupation, in which constant practice is considered essential to success; the very large premiums offered at their ploughing matches, creating a great stimulus to skill. The great objects in ploughing should be, to break up the whole surface of the field, to give the greatest exposure of fresh earth to the atmosphere, and to produce the most complete pulverization; where these are accomplished, there is a more even growth of crops; the frequent repetition of the harrowings reducing the soil to a friable finely pulverized mass, presenting more points to the atmosphere, and increasing greatly the power of absorbing moisture, over a hard and compact surface, especially in hot and dry weather. Then again, we plough too shallow; deep ploughing is an absolute essential of good farming in every well-cultivated district; it is founded on correct theory and sustained by successful practice: for as plants absorb food and moisture from the earth by their roots, which penetrate it in all directions, of course the deeper, the more friable and open the soil, the further they can go, and the more vigorous must be their growth. The mould in some of our best lands not being more than four or five inches deep, we seem to feel the greatest dread of going below it and bringing up the clay; consequently we suffer inconvenience both from drought, and an excess of moisture; in a dry season the roots of plants not being able to force their way through the compact subsoil in search of moisture at a greater depth, and in a very wet season, this same subsoil preventing an excess of moisture from passing off, and retaining it in too great quantity about them. "The frequent renewal of the air by ploughing and the preparation of the soil, especially in contact with alkaline metallic oxides, the ashes of coal, burnt lime, or limestone, changes the putrefaction of its organic compounds into the pure process of oxidation; and from the moment at which all the organic matter existing in a soil enters into a state of oxidation or decay, its fertility is increased." Prouty's subsoil plough, recently come into notice, is probably destined to effect a radical change in obtaining a deep tilth; it obviates at the same time, the objections of those who are opposed to turning up the subsoil, on account of the injury sustained by the first crop; it is simple in its construction and easily managed; it follows the common plough in the same furrow, stirring up the subsoil to the depth of six or eight inches, but not turning it over. It has been tried in the state of Delaware and other places with great success, and will soon form an appendage to every good farm. It is perhaps not going too far to assert, that the subsoil plough may effect for agriculture, what steam has done for manufactories.

"In respect to root culture for stock, the

time has gone by when its success was deemed problematical, and I have entire confidence, that before twenty years shall have passed, roots will be considered as indispensable a crop as Indian corn or potatoes. One reason why they have not made their way faster, is owing to the extravagant calculations which ushered them into notice,—they were to supercede not only the use of grain, but also of hay! They were accordingly fed in some places at the most extravagant rate, on the principle, if only a moderate quantity of roots produced such benefit, a larger quantity must produce more; and this method of feeding not answering the purpose, the culture of them was discontinued. From my whole experience I can say, I have fed them to uniform advantage, to cows and young stock, supplying succulent food at a time when they generally fall away for want of it; promoting the secretion of milk and the flavour of butter, and keeping them in fine healthy condition, without the usual interruption to thrift by a change from pasture to dry food. By making an estimate of the quantity of corn annually fed to stock in Chester county, and deducting one third, which is a low estimate, of what might be saved by combining with it a portion of roots, an idea may be formed of the benefit to be derived by an extended system of root culture. Another advantage is, they are not great exhausters of the soil, for by their broad leaves they derive a principal part of their nourishment from the atmosphere; while the grains, such as wheat and oats, with narrow leaves, obtain their nourishment chiefly from the soil; and it is ascertained, that all plants which mature their seeds on the ground, impoverish a soil much more than do those that are cut green. And when they are made to alternate between two of our grain crops, they will obviate the objection to raising the same species of plants in succession.

"But the proper collection and application of manure, after every thing else is said, is the grand secret of fair management. All crops exhaust the land more or less, the means of renovation existing in manure, the farmer's gold mine, the capital on which he conducts his business! and yet, the too common practice in this neighbourhood, is to allow the accumulations of the winter barn yard to remain unmoved until the succeeding fall, when it is applied to the wheat; but by the combined action of the sun, wind and rain for so long a period, there must be a great loss sustained; and add to this, it is not uncommon to see at the time of heavy rain, from many barn yards, a stream of liquid manure flowing off into the road or the nearest ditch, which is totally lost! The continuance of this through the whole season, may be compared to repeated infusions of a certain quantity of tea, so as to exhaust it of all its strength, and then to make use of the residuum. The loss arising from this, is probably two-thirds: by estimating the increased value of the crops of Chester county from the application of two-thirds more manure to each farm, an idea may be formed of the extent of the evil. This is one among the many illustrations which might be given, where sound theory should be combined with practice; agriculture has received its present impulse, not so much from chance discoveries and experiments of the farmer, as from the labours of those whose assistance he generally rejects. For most of the improvements in English agriculture, which so eminently distinguish her, she is indebted to the researches of men denominated, 'book farmers,' but who, soaring above prejudice, and animated with true public spirit, devote their time, their talents and sometimes, their fortunes to the cause of agricultural improvement. The objection against this class of persons has been an impediment here to the progress of the art, but it is as unnatural as unjust. No one objects to converse with his brother farmer on matters relating to their common business,—to compare their experience, and we all have derived advantage from visiting other sections of country, and contrasting its soil, its crops and its cattle with our own, and this is all very well; but so soon as the information thus acquired is transferred to print in an agricultural paper, for the greater convenience of transmission, it immediately becomes 'book farming,' and is avoided as an unclean thing! No doubt, much has been written which could never be made available in practice, but the mischief done in this way, has been trifling and transient, while a spirit of inquiry has been aroused, productive of positive benefit. It is not expected that farmers should find time to become profoundly versed in chemistry or natural philosophy, but if there is one business of life in which a moderate acquaintance with the sciences is at all necessary, it is certainly farming. In all his operations there may be application of chemical knowledge; every plant requires for its support and growth, such food as is found on analysis to enter into its composition, and all vegetable matter is resolvable into certain elementary substances; then we have mineral, animal, vegetable manures, some nutritive, some stimulating, and some acting mechanically, and all differing in their composition; and how is the farmer to act with judgment in his application of them, without

such knowledge? The great increase of agricultural publications and agricultural societies, within two or three years, is one of the surest evidences, that the profession of the farmer is about to assume its proper importance in society; these have paved the way to improvement in other countries, and they will do the same here."

Rust and Mildew, on Wheat.

In the Farmers' Gazette for October, is an allusion to the Report made to the New Jersey Agricultural Society, in relation to *rust*, &c. in *wheat*, which was published in the Cabinet, three months ago. The Gazette inquires, "were the fields of wheat, mentioned in that Report, manured? If so, with what kind of manure, and at what time before sowing?" We wrote to the President of the N. J. Agricultural Society, requesting him to enable us to answer the above inquiries. His reply, kindly and promptly furnished, we publish below.—Ed.

Dear Sir,—I duly received your communication on the subject of *mildew* and *rust* on wheat. After making the proper inquiries of my neighbour White, I will now answer as definitely as the circumstances permit. Your questions in order are, "were the fields manured? if so, with what kind of manure, and what time before sowing?" I will name the kind of soil, it being important in a careful examination of the subject, as I have observed frequently, that a deep, moist, rather wet soil, is much more inclined to mildew and rust, than a drier and more friable one. As my neighbour White's field is within four hundred yards of my door, I have frequently examined the soil and growth of grain on it; half the lot is good sound loam, very productive in grain; this part had no manure for that, or for several previous crops; the other half, is a drier soil, having a mixture of shell and gravel, and is very productive; this was manured with a light quantity of well rotted barn-yard manure, some weeks before sowing. This part was not quite so forward as the first mentioned, nor so large, having many apple trees in it; the shade kept it back, and, as mentioned in the report, kept off the intense rays of the sun, and it was less injured by the rust. Perhaps its being a little more backward, and not in the exact state in which the heat of the sun has so ruinous an effect upon it, might have had a tendency to save it.

One half of my own field is a rich loam of excellent quality, rather moist, producing heavy crops of any kind, when well managed; the other half is a red loam, some shell and gravel—a superior soil, being drier, and more friable, but not so rich. This part had a light dressing of very rotten manure, harrowed in with the wheat, sometime before sowing. This is the part mentioned in the report, of most value; it was a little more advanced toward maturity than the other, when struck with the rust. These lands are some of the best in the place.

I have taken much satisfaction in answering your questions, and shall be gratified if they give any light on the subject.

The view the committee took of the subject, they think was strongly confirmed the present season by close examination of the wheat, while ripening.

Respectfully yours,

Caleb Smith Green.

Lawrence, November 8th, 1842.

New Method of Grafting Apple Trees.

Plant the seed in rows at a suitable distance from each other, and the hills, say about five feet apart in each row. But one tree should be suffered to grow in a place. Now when the young tree is sufficiently grown, in the spring of the second or third year, any quality of fruit may be grafted into it in the following manner: First, bend the tree over, and obtain for it a firm resting place, either on a block, or a board, resting on the knees, (after it has been divested of its branches,) and with a stout sharp-pointed knife, pierce holes directly through the centre of the tree, about five inches apart, into which the scions are to be introduced—leaving above, two or three buds. A trench is then to be dug, in a direct line between the trees, about four inches deep, and the whole tree bent down and buried, leaving the tops of the scions above ground. In this new condition, the scions become uniformly thrifty young trees, supported and nourished from the buried tree, from which issue, in due time, roots from its entire length. The second year from this operation, the whole parent tree may be dug up, the new growth sawed apart and transplanted. It will thus be seen that if the tree is five feet in height, ten or twelve young trees, of whatever quality is chosen, may be obtained in this way, whereas by the ordinary method of grafting, there could be but one, provided the graft lived. The young scion will bear fruit thus transplanted, in the same time it would, had it been grafted into a tree fifteen years old.

I know not whether this process is new among your agricultural community at the North; but I have repeatedly witnessed it in Georgia and Alabama, and I have been informed by some of the best horticulturists in those States, that it is always successful.

Yours, respectfully, Henry Lee.

Con. Farm. Gazette.

Manuring in Germany.

To the Editors of the Farmer's Cabinet.

THE following extract of a letter from M. Feyher, of Baden, was translated from the German by Mr. Goundie at my request, with a view of offering it for publication in the Cabinet. It exhibits an example of the interest felt for the institutions and agricultural improvements of our country, by great numbers of intelligent Germans, of which class the writer of the letter is a fair representative.

The bond of union formed with Germany, by the immense emigration from that country to the United States, must in the absence of all causes of national hostility, create a deep reciprocal feeling of regard.

MORRIS LONGSTRETH.

Valley Green, Nov. 1, 1842.

Extract of a letter from Schwetzingen, near Manheim, in Germany, dated July 30th, 1842.

To G. H. Goundie, Bethlehem, Pa.

"Permit me to tender you my best thanks for the almanacs and sundry other, to me, most interesting pamphlets published in your great country. By means of your press, we in our distant land, become more fully aware of the habits, mode of living and enterprise of the North Americans; and certainly it is of infinite gratification to every German, that so many of his countrymen there, become happy and comfortably established, and some even attain to a degree of affluence. But very recently an application was made to our Chambers, not only from the Grand Duchy of Baden, but from the other confederate states of Germany, containing about 25,000,000 inhabitants, that emigration to America might be generally encouraged; which motion was warmly seconded by our grand Duke. Should Austria and her German provinces, Hanover, and the Hanseatic towns, (as we have every reason to believe) join in encouraging emigration, then indeed might we consider our Father land blest; truly satisfactory would it be, to know so many of our countrymen inhabitants of the New world, still in bonds of union with us. Reciprocal commercial relations would become more flourishing, which would be of the most signal advantage to both countries. May God, in whose hands are the destinies of nations, grant his gracious blessing thereto.

"In one of the above mentioned almanacs, I also find an advertisement under the head of 'Useful varieties,' as follows: viz. 'Preparation of a newly discovered compost:' and further, 'a number of years ago, a premium was offered for the invention of a new compost; the prize was awarded to some persons, and publicity made thereof in the agricultural journals of that day, in order to place the same within reach of the whole agricultural community.'

"Try and procure for me the Journal or pamphlet containing the preparation of said compost; it is of the greatest consequence to us. I am confident we might be enabled thereby to raise one-third more produce per acre from our fields. The only thing wanting, is a compost, which is not too expensive.

"To the irrigation of our meadows, the greatest attention is paid at present, in order to enable us to stall-feed more cattle, and thereby obtain more manure; but this is attended with a great deal of expense, and nevertheless, not enough can be obtained to make our farms as productive as they might otherwise be. Stable manure at present, sells for quadruple the price it did 10 years ago; and to give you some idea how eager the farmers are to procure the same, let me inform you, that the farmers of Oftersheine purchase the same in the city of Manheim, a distance of 10 miles, at an extravagant price, and haul it upon their farms. I myself having what is generally called plenty of litter, purchase annually from $500 to $600 worth of manure. Your friend,

"FEYHER."

FEMALE DELICACY.—Above every other feature which adorns the female character, delicacy stands foremost within the province of good taste. Not that delicacy which is perpetually in quest of something to be ashamed of, which makes merit of a blush, and simpers at the false construction its own ingenuity has put upon an innocent remark; this spurious kind of delicacy is as far removed from good taste, as from good feeling, and good sense; but the high-minded delicacy which maintains its pure and undeviating walk, alike amongst women as in the society of men, which shrinks from no necessary duty, and can speak, when required, with seriousness and kindness, of things at which it would be ashamed to smile or to blush; that delicacy which knows how to confer a benefit without wounding the feelings of another, and which understands also how, and when, to receive one; that delicacy which can give alms without display, and advice without assumption; and which pains not the most humble or susceptible being in creation.

UNRULY CATTLE.—If you would teach your cattle to be mischievous, put up a low, or a slender fence at first, and raise or strengthen it as they become expert in jumping.

Poultry.

We are confident most of our farming friends would find that more attention to their poultry yards, would add essentially, not only to the comfort of themselves and their families, but also to the aggregate of their annual farm profits. Without any particular effort, or any extra buildings or yards, from 50 to 100 fowls may be kept on every farm of a hundred acres, and the contributions they will make in eggs and chickens to the products sold, will amount in the end to a very handsome sum. It is true, to be made a source of profit they must receive attention; the eggs must be gathered daily, two or three hens must not (as is frequently the case,) be allowed to sit on one nest; coops must be provided for the chickens, as they are hatched, and they, as well as other domestic animals, must be fed. Fowls will sometimes, perhaps, do a little mischief; if allowed access to grain fields, they will break down and destroy more than they will eat, and if they find the planted corn, they will show a perseverance and dexterity in tracing out the rows, and extracting the plants, worthy of any featherless biped that lives by his wits and the plunder of the public. The true way to put an end to such troubles at once, is to confine the depredators, when you do not wish to kill them; and then a little extra feed is all that is necessary to save both your crops and your fowls.

Domestic poultry usually do much better that run at large, than they will if restricted to narrow limits in the coop or yard. Their health is improved, their flesh is finer and better tasted, and they will produce more eggs, at large, than in confined situations. The turkey, in particular, is a strenuous advocate of the largest liberty. Hens in a garden are a pest, but there is no necessity of being troubled with them there. A common picket-fence five feet high will effectually exclude them; it being well known that fowls rarely attempt flying over such a fence, and when made plain, such a fence costs perhaps as little as almost any other.

To have the poultry-yard profitable, the fowls should not be kept until they are old. There is no objection to preserving a favourite cock so long as he is active and lively, but hens after three years will not produce as many eggs as those of one or two years. Much, however, is depending on the breed kept, but more on the manner in which they are kept, so far as good layers are concerned.

The Game cock breed and the Bantum breed, are not generally kept, except by amateur poultry breeders; rarely by farmers, as they afford little profit as layers or rearers of chickens. The chickens of the game cock breed are so pugnacious as to be constantly fighting with one another, and in this way sad devastation is made among the broods: the Bantums are so small as to be undeserving of notice, except as objects of curiosity.

One of the most beautiful of our fowls is the Hamburg, or Poland Top-knot, and it is also one of the best with which we are acquainted. Both Mowbray and Boswell, in their works on Poultry, speak highly of this breed; the first saying, "they are one of the most useful varieties, particularly on account of the abundance of eggs they lay, being least inclined to sit of any other breed, whence they are sometimes called *everlasting layers*, and it is usual to set their eggs under other hens;" and the last remarking, "this is a kind we esteem above all others, both for their appearance and usefulness, and we regret they are so seldom to be met with pure in this country." Mr. Bement says, "they are hardy, enduring well the extremes of heat and cold, although they are not so thickly covered with feathers and down, as some other breeds. Their colour is of a shining black, or a deep glossy changeable purple, with a large white top-knot of feathers, covering so much of their head as almost to blind their eyes, and often require clipping. The contrast of this perfectly white crown with the black plumage, is truly beautiful; but that of the cock differs from the hen, hers being broad and erect feathers, while his are narrow and hanging down in every direction." We have seen a few instances, in which a small tuft of brilliant red feathers existed in the centre of the white knot, almost realizing the appearance of a splendid flower.—*Cultivator.*

How to boil Irish Potatoes.—Good and indifferent potatoes depend very much upon the manner in which they are prepared for the table. Some cooks always have heavy, hard, watery potatoes; while others for the most part have them dry, mealy and excellent. This difference depends generally upon the difference of cooking. The common way is to put the potatoes into cold water, boil them by a slow fire, and cool them as slowly; the better way is to put them in boiling water, keep up a brisk fire till they are *just done*, take them out immediately, throw a wet cloth around them, and gently squeeze each with the hand till it cracks open, for the watery particles to escape in form of steam, then peel them, and they are exactly right. By this method, almost any potatoe will do well.—*Nashville Ag.*

For the Farmers' Cabinet.

Strawberries.

A Strawberry bed is considered an essential requisite in the kitchen garden, and the farmer who is desirous of a supply of this delicious fruit, should not neglect to allot a portion of ground to this object. It is not only a delicious fruit, but is conducive to health, and said to be an excellent dentifrice. The strawberry is easily cultivated, is an abundant bearer, may be readily gathered, and is more luscious than many other cultivated fruits.

The strawberry is cultivated with great variety of success, and it is to be suspected the failures that have occurred, in most instances, have been for want of a knowledge of the Dioecious* character of the plants cultivated, and of the proper management of such variety.

The Magazine of Horticulture for the present year, contains two communications from N. Longworth of Cincinnati, Ohio, together with some judicious observations by the editor, tending to establish the Dioecious character of all the large fruited variety of the strawberry; and directions how to manage them, so as to insure an abundant crop of large fruit. He says, "there is no strawberry that produces abundantly and very large fruit, where the stamens and pistils are perfect in the same blossom."

"In raising from seeds, both kinds are produced; but if suffered to run together, as the staminate vine is the more vigorous, it will make ten new plants where the pistilate vine produces one, and will soon root out all the bearing plants." That "neither will produce a perfect fruit when separated from all others, nor would either ever produce a plant of a different character." That "in all the monthly and white varieties of the strawberry, that I have seen, the pistils and stamens are perfect in every blossom, and as a natural consequence the fruit is never large."

"That no good fruit can be expected where there are no stamens or where there are stamens only.

"Perfect flowers answer as well for fertilizing the stile bearing plants, as flowers with stamens only, and as they give fruit are more profitable."

"In cultivating any of the large variety, such as Hovey's seedling, the Hudson, Methven, Downton and some others, it is only necessary they should be set in a bed with a row of early Virginia, or some other fruit-bearing plants of a favourite small variety among them."

In preparing the ground, for a new plantation of strawberries, it should be made loose and fine, cleared of weeds, and particularly of the roots of white clover and other grasses, as they are a great annoyance in the after culture.

The roots may be planted in either spring or autumn, as most convenient. If planted in the spring, unless a large quantity of earth is removed with the roots, they cannot be relied on for much fruit the first season, but will become well established, and if kept free from weeds, grass and the runners, will rarely fail to produce an abundant crop the second and succeeding years.

If planted in the autumn, they are liable in some places, to be raised out of the ground by the frost, the first winter. My neighbour B. considers the offsets of the old plants much better for a new plantation, than the plants produced by the runners. These offsets he separates and plants about the twenty-fifth of the eighth month, preferring this time that they may become established before winter, and produce a good crop the next year.—About the middle of the ninth month he clears his beds from the accumulated runners and the plants growing from them, together with all other impediments to a neat cultivation and appearance; and but few farmers succeed in raising them better, or in producing a more abundant crop. M.

Bucks County.

* *Dioecious* plants, are those which have the *staminate* and *pistilate*—that is, the male and female, flowers on distinct plants.—Ed.

Small Productive Farm.

I raised, the past year, from 30 acres of land, 700 bushels of potatoes, 80 bushels of barley, 25 bushels of beets, 15 bushels of wheat, 10 bushels of beans, 4 tons of mowed oats, 6 tons of English hay, 10 tons of meadow hay, 40 bushels of corn, 20 bushels of carrots, 75 chickens and turkeys, and a great variety of garden *sauce*. I have killed one hog, weighing 390 pounds, made 400 pounds of butter, kept three cows, a pair of oxen, two heifers, two steers, eight sheep, and four hogs. I have been on the place but two years, and have laid six acres of land to grass; the land a clay loam, easy to work, I have no convenience for my hogs to graze, neither do I believe it economy, for the extra manure that can be made by yarding them, will pay the extra feed. I mix lime with my compost, and plaster my corn, potatoes and grass. I sort my potatoes before sale, and by that means save half a peck per bushel, which would be lost to me if not sorted. Finally, I cook every thing I give my hogs, and feed warm and *keep warm*. A. T. Perkins.

Maine Farmer.

For the Farmers' Cabinet.

Philadelphia Agricultural Exhibition.

Messrs. Editors.—Your correspondent "Z," in a communication under the head of "Agricultural Exhibition," in the last number of the Cabinet, undertakes to give a history of the cattle show, held at the Rising Sun on the 12th and 13th of October, last. With some things he appears to have been wonderfully pleased; but it is not at all difficult to discover, that his real object is to bring the Society into disrepute; and further, that he is blessed with a good share of presumption. He begins his complaints by noticing, that many of the cattle had been on that ground so often as to excite little notice, and that the Society had heretofore lavished their premiums on them in the most extravagant manner. He also notices, that the Prince of Wales has at last been triumphant over Colostra, his old rival; and in the most positive and consequential manner tells you, that "there never was a question as to the merits of the two animals." He speaks of Colostra's defective rump and hind quarters generally; and at once condemns him without a further notice. I do not wish to make a comparison between these two fine animals; they have several times met, and have been examined by the best judges in this section of the country, who have given their opinions of their merits, and with them I let them rest; but I must say, that the man who finds fault with Colostra's rump, or hind quarters, or any other part of him, would expose himself to ridicule amongst judges of thorough bred Durham short-horns. If your correspondent "Z." wants more coarse beef in the hind quarters, I would recommend him to the Teeswater stock, as being most likely to suit his taste. "Z." complains of the uncertain and unsatisfactory nature of the award of judges, and is so disgusted with their ignorance and prejudice, that he has come to the conclusion never to trust any of his stock in their hands. Why, really, Mr. Editor, I feel some alarm for the character of our next exhibition, as we may not have the assistance and support of this very modest, and withal, knowing individual. But to be honest, I do not believe that he owns a good animal, or *knows when he sees one*. Who are the judges upon whom he bestows the epithets, ignorant, inexperienced, and prejudiced? Why, sir, men who are selected from the country round, many from a great distance; chosen on account of their long experience in breeding, rearing and feeding the best stock that the country produces; many of them too have been engaged in the business from 20 to 30 years; honest men, who have good judgment, and are not afraid to exercise it on any occasion where they may be called, and whose characters for veracity, will never suffer in the eyes of their neighbours from the insinuations of "Z." After pouring out his wrath on the judges, he travels out of his way to vent his spleen against Leander, or his spirited owner, I can scarcely tell which. He inquires, if Leander is in any way improved since the time he was declared by the judges, inferior to Sam Slick? Now Sam Slick was not on the exhibition ground this year at all, therefore they could not come in competition. But mark the question;—he asks if Leander has improved in any way in the last two years, from the time he was one year old. Would any man, Mr. Editor, having the least knowledge of cattle, ask such a silly question? Leander, one of the best bred bulls in America, in the hands of one of the best breeders and managers of improved stock in the country, and not make any visible improvement in two years! Well, I confess, *that* is rather discouraging.

The next statement made by "Z," to show the inconsistency of the judges, is groundless. He tells you that Judge Longstreth received a premium this year for a calf, the same stock as that exhibited last year, which was considered so exceptionable, that the Judge had them removed the first day on that account. Now, sir, the truth of the matter was, that the judges were unanimous in giving to Judge L. premiums for his cattle last year, and were only prevented by his mistaking the rules of the society, and not leaving his cattle on the ground until the second day. "Z." appears to have been equally dissatisfied with the committee on implements, and the result of the trial of ploughs on the third day. Nothing appears to have been managed to suit his genius. His plan for disposing of the funds of the society, instead of bestowing them on the most deserving in the shape of premiums, is worthy of him; but before he attempts to advise the society how to conduct their business and dispose of their funds, I would recommend him to become more respectful and candid towards his fellow citizens, and treat them with more courtesy and confidence than he has hitherto done.

Culley.

Philadelphia, Dec. 1st, 1842.

The servant who knows, and who can do a thing better than his master, follows his own pleasure in it, which will seldom lead him to waste his strength in increasing the wealth of one whom he undervalues; but he will rather think of his own advantage, and how to obtain the best pay and the most perquisites.—Kliyogg.

The Iron Steamer, Great Britain.

THE "Times" gives the following description of this gigantic vessel,—the largest in the world. The Great Britain is built entirely of iron, with the exception of the flooring of her decks, and the flooring and ornamental parts of her cabins. She is 324 feet in length aloft, or upwards of 100 feet longer than our largest line of battle ships. Her extreme breadth is 51 feet, and the depth of her hold 32 feet. She is registered 3,200 tons, so that her bulk far exceeds that of any two steamers in the world. She has four decks, the lowest of which is of iron, and appropriated for the reception of the cargo. The upper deck, with the exception of a small break in the forecastle, is completely flush from stem to stern, without building or elevation of any kind, so that, besides the masts and funnel, there will be nothing above deck to offer resistance to a head wind.

The two intermediate decks are appropriated exclusively to the use of passengers and the equipage of the ship, and consist of four grand saloons, forming together a length of dining room, of 350 feet, two large ladies' cabins, or family rooms; and one hundred and eighty state rooms, each containing two spacious sleeping berths, so that besides the portion appropriated to the crew, steward's department, &c., the immense number of 360 passengers can be accommodated, each with a separate bed, without requiring a single sofa to be made up in any of the saloons.—The principal saloon is 108 feet long, by 32 feet wide, and 8 feet 3 inches high. Besides the vast space appropriated to the passengers, crew, &c., and that occupied by the engines, boilers, &c., she has sufficient room for the stowage of 1000 tons of coal, and 1,200 tons of measurement goods. There are three boilers, capable of containing 200 tons of water, which will be heated by 24 fires, and she has four engines, each of 250 horse power, making in all 1,000 horse power. Some idea may be formed of her vastness, when it is stated, that 1,400 tons of iron have been used in her construction.

The most novel feature about the Great Britain, is her mode of propulsion, which is by the newly improved screw-propeller, patented by Mr. Smith, of London, with improvements made upon it, and applied by that gentleman with complete success, to the Archimedes. The Great Britain will be fitted with six masts, on five of which, a single fore-and-aft sail only will be carried, the mainmast alone being rigged with yards and topmast. These masts will be low, as compared with the size of the vessel, although the mainmast will be 95 feet long, and the quantity of canvass, though inconsiderable to what she would carry as a full rigged ship, will still be as much as would cover three quarters of an acre of ground.

It is difficult to ascertain the precise limits of the speed which she is calculated to perform at sea. Probably the expectations of the directors are greater on this point than they choose to confess until an actual trial, but something considerably exceeding that of any sea-going steamship at present afloat, may be looked for. The rate at which the Oriental steam vessels accomplish their voyages, does not average more than eight miles an hour: the Atlantic steamers about nine, and the most rapid sea voyage yet accomplished, has not exceeded an average of ten miles an hour. It is estimated that the Great Britain will accomplish from ten to sixteen miles an hour, according to the nature of the weather and the sea; and no doubt is entertained that her average will be at least twelve to thirteen miles per hour; taking the lowest of these rates, there would be an amazing increase over the great triumphs of steam navigation hitherto heard of.

Wool.--Michigan.

GEORGE HENTIG, an intelligent correspondent of the Western Farmer, who writes from Marengo, Michigan, contends that the Southdown, Cotswold, or Leicester sheep, are preferable to the Saxony, both on account of the fleece and the carcass. He very justly inculcates the sentiment, that "a well bred animal will always amply compensate for its good keep." He thinks "more money may be made by raising good mutton, than good beef;" and that our native sheep are not a fair sample of what mutton ought to be. He closes his letter with the following paragraph:

Is it not strange, that among the many emigrants arriving in New York and elsewhere, that scarcely one finds his way into this State? Certainly no State in the Union holds out greater inducements to the emigrant, than does the State of Michigan. There never was a better time for a person commencing on a new farm than the present. We can, at this time, get our openings, or prairies, *broke up* at the low price of twelve shillings per acre, and fenced for less than half that sum; then there is a farm to go on with—no clearing land and waiting 10 or 12 years for the stumps to rot out. I think many that are now working the heavy timbered lands, would soon stop, could they have a peep at our Western country; indeed, I may say, "Western Michigan against the world."

Singular Disturbance of a School.

In the town of St. Antoine, department Doubs, about 4 o'clock in the afternoon of July 27th, three bulls had been fighting in their pasture. One of them finding himself growing tired, took flight, and being pursued by the other two, took refuge in the village school room, at a time when the scholars were all assembled there. Mr. Lepine, the teacher, made vain efforts to drive him out: the bull, pursued by his two conquerors, knocked down the master. A frightful scene then commenced, the furious animals continued the contest with each other in the room where there were forty pupils, upset and broke benches and tables, and even the master's desk.

The master, though at first terrified by the unexpected scene and the tears and cries of the children, soon succeeded in recovering his presence of mind, and selected the only means of safety which was possible. He saved all the children, by taking them from under the feet of the combatants, and putting them through the windows into a garden. For more than two minutes, most of the scholars were prostrated and trodden on by the bulls; yet they escaped with no injury but bruises.

The school room, after the bulls left it, exhibited marks of entire devastation, the windows broken, as well as the benches and tables, the teacher's desk, and every thing in it forming one heap of ruins. Every one does justice to the devotedness, courage and presence of mind of the teacher. If he had become bewildered and left his charge, many would doubtless have been killed or crippled.—These boys will probably long remember the difference between a B and a bull's foot.—*Paris paper.*

Plain Corn Bread.—Six pints meal, one table spoonful of salt, four pints water, thoroughly mixed with the hand, and baked in oblong rolls, about two inches thick; use as much dough for each roll as can be conveniently shaped in the hand. Many use hot water, which in winter, is certainly best. The bread is better to be made half an hour or more, before it is baked; the oven must be tolerably hot when the dough is put in. All kinds of corn bread require a hotter oven, and to be baked quicker than flour.

THE FARMERS' CABINET,
AND
AMERICAN HERD-BOOK.

Philadelphia, Twelfth Month, 1842.

It is announced in the last number of the Farmers' Register, published at Petersburg, Va., that at the close of the present year, it will pass into the hands of Thomas S. Pleasants, Esq., who we have reason to believe, is well qualified to sustain the high character, which it has long, and deservedly maintained under the supervision of the present Editor. Ten of the best years of his life, have been industriously and laboriously given to the Register, by our friend, Edmund Ruffin, and we shall part with him from the editorial corps, with sincere regret. He will, we trust, however, carry into private life, the satisfaction of believing, that the effects of his labours, will remain to his country, long after himself shall have gone the way of all the earth. A distinguished Senator of Virginia has lately assigned to the "Essay on calcareous manures," a high place among the "Agricultural classics" of our language, and has publicly declared, that under the awakening influence of the able writings, and experimental demonstrations of Edmund Ruffin, "lower Virginia is now undergoing one of the most remarkable transformations of this age of improvement." Testimonials of this nature should not fail to prove a solace in the midst of whatever of disappointment, may mingle in our course, and encourage us to still further labor in a good cause. To our friend, T. S. Pleasants, we tender a hearty welcome into the Editorial chair, and ask leave to express a hope, he may find it easy, as well as profitable.

Through the courtesy of Hon. Wm. C. Rives, President of the Agricultural Society of Albemarle, Va., we have been furnished with a copy of his "Address at their annual Fair, on the 29th of Oct., 1842."

There must be something particularly cheering, and calculated to incite to every possible exertion, in the reflections of the man who is conscious that himself now occupies the position, which such men as James Madison and Gov. Barbour have occupied before him. Men, "who have held the scale of empire," and served their country in "its highest, and most difficult stations," and have afterwards given the evening of their days to the noble task of elevating their country's agriculture, cannot fail to have left behind them, examples which it may well become the ambition of their successors, to follow. With the ability to place such men, at its head, we have a right to expect the Society of Albemarle will not be behind the foremost in advancing those great interests, which it has associated to promote.

The wholesome influence of this Society is obvious in the general improvement of the county. Instances are given of farms over which the wand of the magician has passed, and so changed their ruinous, exhausted and delapidated condition, that a person who only knew them five and twenty years ago, would not now recognize them as the same places, except by their unchanged geographical position. "No man," it is justly observed, "should be content simply to preserve his lands in the condition in which they are. The poor should be made rich, and the rich, richer." The president declares he has always found the best application he could make of money derived from land, was to return it back again in the shape of improvement. No investment of capital, he thinks, can be more safe, and generally, none more profitable. But then, money must be expended on land, as on every thing else, judicious-

ly; adapting manures, as well as crops to particular soils, and always applying them, with so well informed a judgment, that results may be calculated with great precision.

The Agricultural establishment of Fellenberg in Switzerland, is referred to, in strong terms of approval and admiration. It was visited by W. C. R., and afforded many evidences of the successful training of its pupils,—of the happy combination of intellectual, and bodily labour,—of moral, and physical improvement. The model farm at Hofwyl is instanced as a full refutation of the prejudices so frequently indulged, against the idea of a necessity for the farmer to regulate his expenditures, and indeed all his operations, by the suggestions of a comprehensive, and well instructed mind. The light of knowledge is spread abroad, through the whole economy of this farm. It is conducted upon scientific principles. That is, such and such manures are applied,—crops raised, and improvements made, because it is *known*, and *understood*, that there is a mutual adaptation of the one to the other. The accounts at Hofwyl, kept with minute and mercantile exactness, show, through a series of years, a nett profit of 8¼ per cent. upon the whole capital employed. A rate of profit, with which, we would suppose, our practical farmers, even in this land of thrift, ought to be satisfied. The "*passion* of farmers to acquire more land, rather than to make that which they already possess, more productive," is glanced at, and we are assured that industry, improvement, and good husbandry are only wanted to "develope the natural capabilities of our soil, and to make it adequate to every reasonable wish, and even to the fondest dreams of prosperity and wealth." Columella's vine dresser is happily introduced, and much to the point,—when his eldest daughter was married, he gave her a third of his vineyard for a portion, and yet he had the same quantity of fruit as before. When the second daughter followed the example of her sister, her father gave her one half of what remained, and still the produce of the vineyard was undiminished!

The Washington county Agricultural Society, held its Fair, and annual meeting at Salem, N. Y., on the 11th of 10th month last. We have been kindly furnished with the Report of its Committee, by Asa Fitch, Jr., the recording secretary. Premiums were awarded to different individuals who raised 29 bushels of winter wheat per acre,—25 and 22 of spring wheat,—80 and 67 of corn,—25 of rye,—97, 80 and 53 of oats, and 510 bushels of potatoes. Eighty-five bushels of the *China tree corn* were grown on an acre, but received no premium, because the grain was shrivelled, and the committee believed it not adapted to their climate, soil and short summers.

The Report states, that on the 5th of fifth month last, Henry Holmes sowed broad cast, and harrowed in, twelve quarts of corn, on little more than half an acre, without any manuring, and it was not touched again, till the 22nd of ninth month, when it was cut, and set up on the ground,—and on the 5th of the next month, he husked from it 46 bushels of ears. He believed the stalks would amply pay the small expense of raising it; and thinks the case goes to show the uselessness of *killing* corn.

We have been much gratified, and interested in looking over "The United States Almanac, or complete Ephemeris, for the year 1843; wherein the sun's rising, setting, &c., are given for six different parallels of latitude, embracing the whole extent of the Union; also, a collection of such Tables as are of most frequent use among Engineers, for the determination of latitude, time, &c.; a complete census of the United States, from the official Report just presented to Congress, including the population of every town, county, territory and state, arranged in alphabetical order; the principal officers of the government and the various departments, with their compensation; a view of all the state debts, and the various purposes for which they were contracted; and numerous statistics relative to commerce, manufactures, agriculture, &c. By John Downes, late of the North-eastern boundary survey. Philadelphia, published by E. H. Butler," No. 5 Minor Street, where it is for sale, as well as at this office.

It will be observed that the title page of this work, promises a great variety of miscellaneous matter; and we think they are realized in the text of more than 300 pages. The astronomical Tables are intended to facilitate the operations, which are oftentimes very laborious, of Engineers, and those whose vocations are among the stars. The complete details of the late census,—Balbi's celebrated Population Table of the world, and the great amount of information in relation to the government, commerce, manufactures, agriculture, debts, resources, &c., &c., of the United States, render it a volume particularly valuable to every citizen who, at a glance, would be willing to see his country as it is.

Our friend Solon Robinson, in a letter to the Secretary of the Laporte County Agricultural Society, dated September 30th, offers "a beautiful Berkshire pig," for the "best tow frock,"—the uniform of the farmer—that shall be produced at the Fair: promising to wear it, not only at the Fair of that Society, but also at that of the Union Agricultural Society of Illinois. He also says in a letter to the Laporte Whig, that the question is settled, that good peaches can be raised in Northern Indiana—and would state his "manner of preparing the ground and setting the trees, but what is the use? Who 'll follow good advice when he can have a way of his own?"

Agricultural Implements.—D. O. Prouty offers for sale, at reduced prices, a general assortment of Farming Implements, among which may be found corn shellers, from 7 to $18 each;—fan mills, from 12 to $18 each;—straw cutters, from 5 to $30 each;—corn crackers;—sausage stuffers;—milk pails, with strainers;—churns;—cheese presses;—centre draught and subsoil ploughs, &c., &c.

D. O. Prouty,

No. 176 *Market, between 5th & 6th streets, Philad.*

Lipman's Diary for 1843, for sale at Kimber & Sharpless', is a very convenient little pocket volume, with blank spaces for every day in the year, in which such entries may be made as are desirable. It is particularly adapted to the use of private families, or persons in business.

Burden's Improved Patent Horse-shoes.—These shoes are made from the best refined iron, and are offered at the low rate of from 25 to 50 cents per set, of four shoes; thus saving the smith much labour and a clear profit of 25 to 50 cents on every horse he shoes, over those who continue to manufacture on the old plan, besides giving greater satisfaction to the customers.

Also, steel toe caulks; cut to fit the shoe, with two prongs, a superior article. For sale by

A. M. & B. W. Jones,
17 south wharves.

Philadelphia, Dec. 15th, 1842.

We found upon our table, on the 7th inst., a communication in reply to an article in our last number. In looking over it, we discovered language, which we seriously believe the writer, be he who he may, would himself regret to see in the columns of this paper. Free discussion we would not discourage; but we have a right to insist that it be conducted with courtesy and good feeling. While the present proprietor has the control of its pages, he must ask to be excused from suffering the Cabinet to be made a vehicle for expressions calculated to irritate, rather than to convince, and which had far better be expunged from the intercourse of gentlemen. If we have inadvertently inserted any thing we ought not, we regret it. While we mean ourselves, to keep in a good humour with all our correspondents, we also mean, if possible, to keep them in a good humour with each other.

☞ Notices, which are essentially advertisements, are sometimes received, with a request that we would insert them. Although the Cabinet is not professedly an advertising paper, the proprietor would be willing to deviate a little from the plan which has heretofore been pursued, and insert to a very limited extent, short advertisements, the subject matter of which, may be in character with this paper. The terms will be one dollar for each insertion of ten lines or less, and so in proportion for each additional line. The money to be paid in advance. An advantageous medium will thus, we think, be opened for our agricultural friends to make their wants known, as well as to have them supplied.

S. C. Ford, of this city, left with us a few weeks ago, a very fine sugar beet, weighing, as he says, about 13 pounds. It was grown at his place, at the corner of Second street and Fisher's Lane; the same spot, we understand, where John Lorain made the experiments described in his work on Agriculture. S. C. Ford also stated, that on a piece of ground 41 yards by 26, he raised 260 bushels of these beets: or at the rate of 1180 bushels per acre. This, at 60 lbs. the bushel, is equivalent to 35 tons of green food, which can hardly fail to be of great value, as a change for stock.

The quantity of rain and melted snow which fell in the Eleventh month, (November) 1842, was nearly three inches and a half. ..... 3.487 inches.

Pennsylvania Hospital, Twelfth mo. 1st, 1842.

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THE FARMERS' CABINET,

IS PUBLISHED MONTHLY BY

JOSIAH TATUM, No. 50 NORTH FOURTH STREET, PHILADELPHIA.

It is edited by James Pedder and the Proprietor, and is issued on the fifteenth of every month, in numbers of 32 octavo pages each. The subjects will be illustrated by engravings, whenever they can be appropriately introduced.

Terms.—One dollar per annum, or five dollars for seven copies—*payable in advance.*

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From the Steam-Press of the late Proprietors and Publishers.